

PROF. F.A. HAGAR

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The 153rd Continuous Year of Publication


Weather Indications

## The GOOD EARTH Survives

Cities may be blasted by bombs; edifices which have stood strong for centuries may topple; homes and factories may be destroyed beyond repair. But the soil, blackened by the blight of war, blossoms green again after the armies have passed.

THE SOIL blossoms green again because of the deep instinct of every good farmer in the world to keep on tilling the soil, sowing the seed and tending his crops, even in the very center of war's destruction.

Accustomed to taking the long view because of the very nature of his calling, the farmer senses perhaps more keenly than other men the long-range benefits of life insurance. Like the good earth, its values remain intact through all life's changes and in spite of every sort of personal or national catastrophe.

LIKE THE SOIL, life insurance is something firm to stand on, something we can be sure of through all of life's vicissitudes. Because of it many a farm and home is safe against the storms and stress of the future.


## Number One Hundred and Fifty-Three



## TO PATRONS AND CORRESPONDENTS

This issue is our One Hundred and Fifty-third annual edition in the same format and at the same price. Your many years of patronage has been, and is-particularly in these trying times-a source of constant gratification and inspiration. It is difficult to realize that this issuc is the third to come out of the all too few hours of evenings and Sundays-our Staff having been preoccupied this past year as usual in the Armed Forces or war service.

Our many explanation and correction tables have been gathered together this year on pages four through twelve. Some oinissions will be evident owing to our going to press before the National Elections . . . and the abnormal dislocation of some tables owing to the War. The substitutions-such as Degree Days, Hesiod's predictions, etc.-we trust you will find do not lack interest. The narrative Arctic Reseue, though well known to many, has bcen included for historical reasons. It ranks our generation of man, in courage, with any and all others.

The title page poems are by David Morton of Amherst, Massachusetts. To Eltinge F. Warner of Field and Strcam we are indebted for the Game Laws. B. M. Rice, in the continued absence of Jeremy Scribble, has prepared the Farmer's Calendars while Lt. Com. Robt. Foote and Loring B. Andrews contributed much valuable information. Mr. Weatherwise, in submitting his Weather Indications, cautions that "this winter will probably be turbulent"-especially during the latter part of February.
M. S. Morrissey, President of The American News Company, John R. Curry of the Machine Composition Company, R. G. Nelson of the Curtiss Way Company, and Plilip Coulter of the St. Regis Paper Company-innumerable editors and broadcasters-government officlals -and hosts of interested friends-particularly those advertisers jou will find in the pages that follow-have gone out of their way to make this issue as good as ever.

Finally-as we go to press-there is talk of the end of the war in Europe. This does not mean an end to war-or any degree of certainty the sacrifices of our Armed Forces have not been in vain. We pray for better times for them, their families-and us.

Man, however, in these great things, can only propose. God is the true disposer. In this, then, it is by our works and not by our words we would be judged; these we hope will sustain us in the humble though proud station we have so long held.

Your ob'd servant,

September 15, 1944.

## THE OFFICE OF CENSORSHIP Washington, D. C.

YANKEE, INC.
September 15, 1944
Dublin, N. H.
Gentlemen:
Thank you for submitting in proof form the weather indications for The Old Farmer's Almanac for the coming year. Due to your published statement that these are "weather indications," there is no application to them of the request in the "Weather" clause of the Code of Wartime Practices for the American Press that no weather forecasts be published except those issued by the U. S. Weather Bureau.

Your cooperation under the voluntary Code is appreciated.
Very truly yours,
JACK LOCKHART
Assistant Director (Press)

## 1945



Ponder then upon this story of the mate, who, after a day's shore leave which had léft him somewhat befuddled, forgot or was unable to write up the day's $\log$. The next morning he found his captain had attended to that duty, adding at the end of the record, "Mate drunk today." The mate said nothing, but at the close of the next day's record, he wrote, "Captain sober today."

## 1946



## EXPLANATIONS, SIGNS, AND ABBREVIATIONS

In accord with long time usage the left and right hand calendar pages beginning respectively on pagcs 14 and 15 will be seen to contain numerous symbols (known as signs) and abbreviations which denote the many happenings in the heavens and on the earth which the OFA purports to set forth. On this page and the two following we include a brief summary of these hieroglyphics - the careful study of which will reward you with not only greater appreciation of this alnanac but also stimulation with regard to further study of the wonders of the universe.

## Names and Characters of the Principal Planets.



8 1 301 The Sun. The Moon.

O Venus.
$\oplus$ The Earth. ${ }^{6}$ Mara.

4 Jupiter.
h Saturn.
tior ô Uranus.
$\Psi$ Neptune.
P Pluto.
Names and Charactors of the Aspects. $\delta$ Oonjunction, or in the same degree. $\AA$ Dragon's Head, or Ascending Node. ㅁ Quadrature, 00 degrees.
B Dragon's Head, or Ascending Node.
¿Dragon's Tall, or Descending Node.
8 Opposition, or 180 degrees.

## Names and Charactars of the SIgnc of the Zodia.

1. $P$ Aries, head.
2. 8 Taurus, neck.
3. $\square$ Geminf, arms.
4.     - Cancer, breast.

15 凡 Leo, heart.
6. In Virgo, belly.
7. $\bumpeq$ Libra, reins.
8. M Scorpio, secrete.
9. I Sagittarius, thighs.
10. Wo Capricornus, knees.
11. \# Aquarius, lege.
12. HPisces, feet.

## Chronological Cycles for 1945.

| Golden Number . . |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Epact | Solar Cycle | . . . . . | 22 | Roman Indiction |
| Dominical Letter |  |  |  |  |${ }^{13}$

## Movable Feasts and Fasts for 1945.

Septuagesima Sun., Jan. $28 \mid$ Good Friday, Mar. 30|Whitaunday, May 20

Shrove Sunday, Ash Wednesday, lat Sun. in Lent Palm Sunday

Feb. 11 Easter Sunday, Feb. 14 Low Sunday, Apr. 1 | Feb. 18 | Rogation Sunday, May 6 |
| :---: | :---: |
| Mar. 25 | Ascension Day, May 10 |

Trinity Sunday, Mlay 27 Corpus Christi, May 31 1st Sunday in Advent,

Dec. 2

## THE SEASONS, 1945

Eastern War Time
Winter Solstice (Winter, 1944), December 21, 7:15 P.M.—Sun enters Capricornus, Wo Vernal Equinox (Spring, 1945), Mlarch 20, 7:38 p.M.- " " Aries, Summer Solstice (Summer), June 21, 2:52 p.M.- " " Cancer, Autumnal Equinox (Autumn), September 23, 5:50 A.M.- " " Libra, Winter Solstice (Winter), $\qquad$ 1:04 A.M. " Capricornus, $\widehat{\text { B }}$

## EARTH IN PERIHELION AND APHELION, 1945

The Earth will be in Perihelion on January 1, 7 P.M., distant from the Sun $91,342,000$ miles. The Earth will be in Aphelion on July .5, 6 A.M., distant from the Sun $94,550,000$ miles.

## CALCULATIONS AND CORRECTIONS

(For Outside New England, see Page 12)
While the predictions of the Calendar pages are made for the latitude and longitude of Boston and are in Eastern War Time, i.e., one hour fast of Eastern Standard Time, the time of the 75 th meridian west of Greenwich, they may be used throughout the United States by applying the corrections given here and in the tables on pages 7 and 12 .

The Table given below contains corrections in minutes of time for a numher of important places in New England, and any other place in New England can uee the correction of the place in tho Table which is nearest in longitude to itself.

For the Rising and Setting of the Sun, Moon and Planets add tabular quantity if longitude from Boston is West, but subtract it if East; and this will give the value when the place is in or near the same latitude as Boston. When the latitude of the place differs considerably from that of Boaton, the oorrection will also be right when the celsatial body is on or near the Equator; but when it is remote from the Equator so much accuracy cannot be expected.

| Eastport Mo. . 16 East. | Concord, N.H. . . 2 min. | Sprinkfld, Mass. . 6 mest. |
| :---: | :---: | :---: |
| Bangor, M8. . . $9{ }^{\text {a }}$ | Nashua, N.H. . . 2 | Williamstown, Mess. 9 - |
| Augusta, M8. . . 5 | Plymouth N.H. . 3 | Newport, R.I. . . 1 |
| Lewiston, Mo. . 4 | Keene, N.H. . . 5 | Providence, R.I. . 1 |
| Portland, Me. . 3 | Montpelier, Vt. . . 6 | Woonsocket. R.I. . 2 |
| Blddeford. Me. 2 | Brattleboro, Vt. . 6 | New London. Conn. 4 |
| Portsmouth, N.H. 1 | Rutland, vt. . 8 | Willimantic, Conn. . 5 |
| Provincatown, Mass. 4 | Burlington, Vt. . 9 | Hartford, Conn. . 6 |
| Gloucester, Mass.. 2 | Lowell, Mass. . . 1 | New Haven. Conn. . 7 |
| Plymouth, Mass. . 2 | Worcester, Mass. . 3 | Bridgeport. Conn. . 9 |

## MORNING AND EVENING STARS, 1945

(A Planet is called Morning Star when it is above the horizon at sunrise, and Evening Star when it is above the horizon at sunset. More precisely, it is a Morning Star when it is less than $180^{\circ}$ west of the Sun in right ascension and Evening Star when it is less than. $180^{\circ}$ east. When the planet is near conjunction or opposition, the distinction is unimportant.)

Mercury will be favorably situated for being seen as as Evening Star when near its greatest eastern elongations, about Aarch 26, July 23 , and November 17. On these dates it will set $1 \mathrm{~h} 43 \mathrm{~m}, 1 \mathrm{~h} 17 \mathrm{~m}$, and 0 h 49 m , respectively, after sunset. It will be seen as a Morning Star when near its greatest western elongations, about January 12, May 11, September 6, and December 26, on which dates it will rise $1 \mathrm{~h} 37 \mathrm{~m}, 0 \mathrm{~h}, 54 \mathrm{~m}, 1 \mathrm{~h} 31 \mathrm{~m}$, and 1 h 46 m , respectively, before sunrise.

Venus will be an Evening Star until April 15 and a Morning Star for the reinainder of the year. It will be brightest as an Evening Star early in March and, as a Morning Star, in the latter part of May.

Mars will be a Morning Star throughout the year.
Jupiter will be a Morning Star until March 13 when it reaches opposition, an Evening Star from March 13 until it comes to conjunction on October 1, and then a Morning Star for the remainder of the year.

Saturn will be an Evening Star until it reaches conjunction on July 6, and will then be a Morning Star for the remainder of the year.

## Glossary of Astronomical Terms, etc.

abol. . . . abolished
Aet, ... age
An. Ecl. ... see Eclipse, Annular.
Aph. Aphelion ... Planet revolving about Sun reaches point in its orbit farthest away fron the Sun.
Apo. - Apogee. .. Moon reaches point in its orbit farthest from Earth.
Appulse . . . if during eclipse Moon passes only through the penumbra.
b. - born.
G. . . Dominical letter for 1945 - marks all of the 52 Sundays.

Aspect . . . description of the relative position of two or more bodies in the solar system. These are described by signs, etc., on the calendar pages thus $\delta 0^{\circ} 4$, etc. By consulting the meaning of the signs and aspects on the opposite page, you will arrive at the meaning for the "sign language" used as the example; viz., Conjunction ( $\delta$ ) of Mars ( $\sigma$ ) and the Jupiter (4) occurs on this day. (See par. 2, page 4.)
Conj. - conjunction . . . moment of closest approach to each other of any two heavenly bodies.
conscr. ... consecrated.
d. . . died.
declination (see top left hand calendar pages) . . . measure of angular distance any celestial object lies perpendicularly north or south of celestial equator. Exactly analagous to terrestrial latitude. OFA gives declination at time each day the Sun is due South.
Dominical Letter . . . used in reckoning civil calendars.
Eclipse . . . conjunction or opposition of sun and moon occurs with moon at or near a node.
Eclipse, annular . . . when sunlight shows around the Moon during the eclipse.
Eclipse, lunar . . . opposition of Sun and Moon with moon at or near node.
Eclipse, solar . . . conjunction of Sun and Moon with Moon at or near node.
Ecliptic... that circle in which the plane of the orbit of the Earth about the Sun would if extended cut the celestial sphere - or the apparent path of the Sun in the sky in a year due to the Earth's revolution about the Sun each year.
E1. - elongation . . . apparent angular distance of a member of the solar system from the Sun as seen from the Earth.
Epact . . . used in reckoning ecclesiastical calendars.
Eq. . . . equator.
Equinox, autumnal . . . Sun passes from northern to southern hemisphere. Fall.
Equinox, vernal . . . sun passes from southern to northern hemisphere. Spring.
E.W.T. . . Eastern War Time.

Feasts and Fasts. . In the religious calendars, many "observable" days change each year with the date Easter falls on. The OFA endeavors to list the important Protestant, Catholic, and Jewish observances.
fd. ... founded.
Full Sea (Morn and Eve) . . the time the tide is high in the morning and in the evening at Commonwealth Pier, Boston. A oorrection table in the OFA also adjusts this time for other places. (See page 7.)
Gr. E1. . . greatest elongation.
Geocentric . . . measure of celestial longitude and latitude when observer is at center of the Earth.

Golden Number . . . used in reckoning civil calendars.
Heliocentric .. . ineasure of celestial longitude and latitude when observer is at center of the Sun.
Inf. - Inferior . . Inferior conjunction is when the Planet is between the Sun and the Earth.
Julian Period . . First year was 4713 B.C. Its length is 7980 years.
k. . . . killed.

Key ... columns of letters marked thus refer to correction table on page 12 so that the times given may be adjusted to localities other than Boston.
Lat. - iatitude.
Moon's Age . . . average time elapsing between new moons (max. 291/2 days). Calculated when Moon is due South.
(D) First Quarter . . . moon in quadrature East or one half of the side of the moon toward the earth is illuminated.
(O) Full Moon . . . moon reaches opposition.
(c) Last Quarter ... moon in quadrature West.
(.) New Moon . . . Sun and Moon in conjuncti

Moon's Piace. . . Moon's position in the Zodiac when due South or which "sign" it is in. See page 4-par. 3 .
Moon Rlse and Set . . . as used in the OFA apply only to risings and settings between sunset and sunrise . . . or during the night.
Moon Runs High or Low . . . day of month Moon Souths highest or lowest above the horizon.
Moon Souths . . . Moon exactly above South point of observer's horizon.
Node . . . when a Planet or Moon in its motion crosses the ecliptic.
Node, Ascending . . Planet or Moon crosses ecliptic from South to North.
Node, Descending . . . Planet or Moon crosses ecliptic from North to South.
Occultations . . eclipses of Stars by the Moon.
Opposition. . . time when Sun, and Moon or llanet appear on opposite sides of the sky (elongation 180 degrees).
O.S. - Old Style. . . was when calendar was eleven days "out of whack." In September, 1752 , the 3 rd was reckoned as the 14 th, to make present calendar.
Penumbra . . concentrio area of partial shadow around the umbra.
Peri. -Perigee ... Moon reaches point in its orbit closest to Earth.
Peri. - Perihelion . . . Planet revolving about the Sun reaches point in its orbit closest to Sun.
Quadrature... Moon or Planet lies a quarter turn of the sky from the Sun.
R.A. - Right Ascension . . . the measure Eastward along the celestial equator of any celestial body from the vernal equinox to the point where the circle which passes through the object perpendicular to the celestial equator intersects the latter.
Rain . . . drops large enough to splatter on the old man's bald head.
Rej. - rejects.
Roman Indictlon . . . used in reckoning ecclesiastical calendars.
Seasons . . . boundary points are the two solstices and two equinoxes.
Snow ... when a cat's tracks are visible on the barn roof.
Solar Cycle . . . used in reckoning civil calendars.
Solstlce, Summer ... point at which the Sun is farthest north of the celestial equator, passing overhead on the Tropic of Cancer. Beginning of Summer.
Solstice, Winter .. limit of Sun's journey south of the celestial equator, passing overhead on the Tropic of Capricorn. Beginning of Winter.
Star, Evening . . . above horizon at Sunset.
Star, Morning . . . above horizon at Sunrise.
Stat. - stationary . . . when the apparent movement of a Planct against the background of Stars stops - just before same comes to opposition.
Sunrlse and Sunset . . . visible rising and setting of Sun's upper limb across the unobstructed horizon of an observer whose eyes are 15 feet above ground level.
Sun Slow . . the times given in this column must be added to your Sun Dial to arrive at the correct time.
Sup. - Superior (Superior Conjunction is when the Sun is between the Planet and the Earth.)
Tldes, heights of . . at Commonwealth Pier, Boston. See correction table on page 7 for adjustments for other places.
Twilight .. . begins or ends when stars of the sixth magnitude disappear or appear at the Zenith - or the Sun is appr. 18 degrees below the horizon.
Umbra...deep shadow through which the Moon passes during eclipse.
Weather Indications . . . in italics on the right hand calendar pages indicate the weather over, as a rule, three or four days time as shown by the spread of the words down the page.
w. . . . with.

Zenith . . . point in heavens directly over observer's head.
Zodiac...sixtcen degree sky road outside of which moon and planets never wander. It is divided into twelve equal divisions called the Signs of the Zodiac, and forms much of the basis of some astrology - and superstition. See page 4 - par. 3.

## TIDE CORRECTIONS <br> (For full explanation see page 11, par 2)

To obtain the time and height of high water at any place, apply the differences in accordance with the sign given to the daily predictions for Boston (Commonwealth Piers). Where a value in the "height difference" column is preceded by a *, the height at Boston should be multiplied by this ratio.

| Time <br> Differh.m. | Heioht DifferFeet | Time <br> Difference h.m. | Height DifferFeet |
| :---: | :---: | :---: | :---: |
| MAINE $\ldots+350$ |  | PENNSYLVANIA |  |
| ${ }_{\text {Augusta }} \cdot \ldots . .{ }_{-0}{ }^{3} 50$ | *0.4 | Philadelphia . . . +2 29 | *0.5 |
|  | +1.6 +1.1 | DELAWARE |  |
| Boothbay Harbor. -0 20 | -0.8 | Rehoboth . . . . -3 37 | *0.4 |
| Eastport . . . -0 28 | *1.9 | MARYLAND |  |
| Old Orchard . . . -010 | -0.7 | Baltimore . . . . -425 | *0.1 |
|  | -0.6 | Ocean City $0.0-357$ | *0.4 |
| NEW HAMPSHIRE |  | DISTRICT OF COLUMBIA |  |
| Hampton . . . +0 15 | -1.2 |  | *0.3 |
| MIASSACHUSETTS |  |  | *0.3 |
| Fall River . . . -3 16 | *0.5 | Vırginia Beach : . -3 14 | *0.3 |
| Falmouth . . . -040 | *1.1 |  |  |
| Hyannisport . . . ${ }^{\text {do }} 45$ | *0.3 | NORTH CAROLINA |  |
| Lynn ${ }_{\text {Marblehead }} \cdot$. . ${ }_{-0}{ }_{-0} 05$ | -0.2 -0.3 | Beaufort Carolina Beach . . -2 $\mathbf{- 2}^{59}$ | ${ }_{*}^{*} 0.3$ |
| $\begin{gathered}\text { Marblehead } \\ \text { Marion }\end{gathered} . . .$0 05 <br> 3 16 | -0.3 | Carolina Beach . . -3 30 | *0.4 |
|  | *0.4 | SOUTH CAROLINA |  |
| Monument Beach . ${ }^{3} 006$ Nantasket . . | +0.4 | Myrtle Beach. . . -345 | *0.5 |
| Nantucket . . . . +0 50 | *0.3 | Charleston. . . . -3 15 | *0.5 |
| New Bedford . . . -3 21 | *0.4 | GEORGIA |  |
| Oak Blufs . . . . to 05 | *0.2 | St. Simon's Island -2 51 | *0.7 |
| Onset . . . . . -3 006 | *0.5 | Savannah . . . - 240 | *0.8 |
| Plymouth . . . . 000 | +0.1 | Tybee Beach . . . -3 26 | *0.8 |
| Provincetown . . to 15 <br> Scituate . . . . . $\rightarrow_{0} 05$ | -0.3 -0.5 | FLORIDA |  |
| Wellfeet . . . . to 20 | +0.6 | Daytona . . . - 320 | *0.4 |
| Woods Hole : . . -3 01 | *0.2 | Fort Lauderdale . -2 15 | *0.3 |
| RHODE ISLAND |  | Jacksonville Miami | *0.1 |
| Block Island . . -3 21 | *0.3 | Palm Beach : . . -3 20 | *0.3 |
| Narragansett Pier -3 ${ }^{3} 1$ | *0.4 | Port Everglades : -2 15 | *0.3 |
| Newport . . . . -3 31 | *0.4 | St. Augustine . . -2 20 | *0.5 |
| $\begin{gathered}\text { Providence } \\ \text { Watch Hill }\end{gathered} . .:-2^{3} 11$ | ${ }_{*}^{*} 0.5$ | St. Petersburg . . +3 58 | *0.2 |
| Watch Hill . . . -2 06 |  | WASHINGTON |  |
| CONNECTICUT |  | Ilwaco . . . . . +144 | -3.5 |
| Long Island Sound -002 | *0.7 | Port Townsend . . +5 04 | *0.5 |
| New London . . . -147 | *0.3 | Seattle . . . . ${ }^{\text {P }} 37$ | -2.0 |
| NEW YORK |  | OREGON |  |
| Coney Island . . -300 | *0.5 | Astoria . . . . . +137 | -3.3 |
| Long Beach . . - ${ }^{3} 57$ | *0.5 | Cape Arago . . +119 | -4.8 |
| Long Island Sound $\begin{aligned} & \text { +0 } 08 \\ & -250\end{aligned}$ |  | Yaquina Head . . +1 12 | -3.7 |
| New York City $\quad \therefore$ - 250 |  | CALIFORNIA |  |
| Ocean Beach . . . -3 57 <br> Southampton . . -3 22 | ${ }_{*}^{*} 0.4$ | Catalina Island . . ${ }^{1} 33$ | -5.9 |
| NEW JERSEY |  | Crescent Eureka City | -5.0 |
| Atlantic City . . -357 | *0.5 | Long Beach . . . -137 | 5.5 |
| Bayside . . . . ${ }^{\text {a }}$ - 24 | *0.6 | Monterey : . -0 03 | *0.4 |
| Cape May : . . . -337 | *0.5 | Point Mendocino . +0 24 | *0.4 |
| Ocean City . . -3 17 | *0.4 | San Diego . . . - ${ }^{1} 35$ | * 5.9 |
| Seabright | . 5 |  | ${ }_{-6.0}$ |
|  |  | Santa Cruz ${ }^{\text {San }}$, +0 08 | *0.4 |

## NEW SUNSPOT CYCLE

The first spot of the new cycle was found December 20, 1942 in No. Latitude $32^{\circ}$. On May 16, 1943, a group appeared in So. Latitude $41^{\circ}$ - the largest ever photographed in latitudes higher than forty degrees. During 1945 sunspot activity is expected to be practically nil - but will increase during the year.

## ECLIPSES FOR THE YEAR 1945

In the year 1945 there will he four eclipses, two of the Sun and two of the Moon. I. An Annular Eclipse of the Sun, January 14, 1945, invisible in the United States. The path of the annular phase, which averages about ten miles in width, extends from Longitude $20^{\circ} 39^{\prime}$ East, Latitude $31^{\circ} 21^{\prime}$ South, a point near Janestown, South Africa, across the Indian Ocean, between Tasmania and the Australian mainland, to Longitude $176^{\circ} 45^{\prime}$ West, Latitude $23^{\circ} 37^{\prime}$ South. As a partial eclipse of the Sun, the phenomenon will be visible at sunrise along the east coast of Africa south of Somaliland, during the morning houre throughout the southern reaches of the Indian Ocean, and in the afternoon in Australia, New Zealand, British New Guinea; the Solomons and New Hebrides, and near sunset in the Fiji Islands.
II. A Partial Eclipse of the Moon, June 25, 1945, invisible in the United States. The beginning of this eclipse will be visible generally in the Pacific Ocean, the Antarctic regions, Australia, eastern and southeastern Asia, and the Indian Ocean. The end of the eclipse will be visible generally to observers in the western half of the Pacific Ocean, the Antarctic regions, Australia, the Indian Ocean, Asia, and the eastern and southern parts of Africa.
III. A Total Eclipse of the Sun, July 9, 1945, visible as a partial eclipse of the Sun throughout the United States, and as a total eclipse at or about sunrise along that part of the path of totality which lies within Idaho and Montana. The path of totality, which varies in width from approximately twenty miles at the points of first and last contact with the earth to sixty miles at the centre point of the path, makes first contact with the earth in the southwest corner of Valley County, Idaho. There the eclipse will be total as the sun rises. Thence the path of totality sweeps northeastward into Montana, where Helena lies within the path. At Helena the partial phase of the eclipse will be in progress at sunrise, totality will occur at $6: 15$ A.M.M.W.T. and last but a few seconds. Swinging across the Canadian border at about the mid-point of the northern boundary of Montana, the path of totality sweeps north and east across central Canada, Hudson Bay, central Greenland, north-central Norway and Sweden, Finland, across Russia, north of Leningrad and Moscow and south of Kuibishev, to leave the earth in Turkestan at Longitude $72^{\circ} 33^{\prime}$ East, Latitude $41^{\circ} 43^{\prime}$ North. As a partial eclipse, the magnitude of which will be the greater the nearer the observer is to the path of totality, the phenomenon will be visible throughout almost all North America, all Europe, North Africa and the Middle East. Along the east coast of the United States the eclipse will begin at approximately 7:00 A.NI.E.W.T. and end about 9:00 A.M.E.W.T.; at maximum phase, which occurs on the eâst coast at approximately $8: 00$ A.MI.E.W.T., the moon will cover about $50 \%$ of the Sun's diameter. On the west coast of the United States the eclipse will have passed maximum phase at sunrise and will end at approximately 6:00 A.M.P.W.T.
IV. A Total Eclipse of the Moon, December 18, 1945, visible throughout the United States. The beginning of the eclipse will be vicible generally in central and western Asia, Europe, Africa, the western part of the Indian Ocean, the Atlantic and Arctic Oceans, North and South America, and the extreme southeastern part of the Pacific Ocean. The eclipse's ending will be visible generally in the extreme northern part of Asia, Europe, Africa, except the extreme eastern part, the Atlantic and Aretic Oceans, North America and South America. The Circumstances of the Eclipse are ao follows:


OCCULTATIONS OF ALDEBARAN, 1945
No occultations of the bright star Aldebaran (Alpha Tauri) will be visible to observers in or near Boston during 1945.

## VBNUS, FARS, JUPITER AND SATURN, 1945.

Below are given the times of the rising or setting of the Planets named, on the first, eleventh and twenty-first days of each month. The time of the rising or setting of any one of said Planets between the days named may be found with sufficient accuracy by interpolation. For explanation of keys (used in adjusting times given to your town) see pages 11 and 12 - especially if you live outside New England.


## LENGTH OF TWILIGHT

Subtract from time of sunrise for dawn.
Add to time of sunset for dark.

| Latitude | $\begin{gathered} 25^{\circ} \mathrm{N} \\ \text { to } \\ 30^{\circ} \mathrm{N} \end{gathered}$ | $\begin{aligned} & 31^{\circ} \mathrm{N} \\ & \text { to } \\ & 36^{\circ} \mathrm{N} \end{aligned}$ | $\begin{gathered} 37^{\circ} \mathrm{N} \\ \text { to } \\ 42^{\circ} \mathrm{N} \end{gathered}$ | $\begin{aligned} & 43^{\circ} \mathrm{N} \\ & \text { to } \\ & 47^{\circ} \mathrm{N} \end{aligned}$ | $\begin{gathered} 48^{\circ} \mathrm{N} \\ \text { to } \\ 49^{\circ} \mathrm{N} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | h m | h m | h m | h m | h m |
| Jan. 1 to Apr. 11 | 120 | 126 | 133 | 142 | 150 |
| Apr. 11 to May 3 | 123 | 128 | 139 | 151 | 204 |
| May 3 to May 15 | 126 | 134 | 147 | 202 | 222 |
| May 15 to May 26 | 129 | 138 | 152 | 213 | 242 |
| May 26 to July 23 | 132 | 143 | 159 | 227 |  |
| July 23 to Aug. 4 | 129 | 138 | 152 | 213 | 242 |
| Aug. 4 to Aug. 15 | 126 | 134 | 147 | 202 | 222 |
| Aug. 15 to Sept. 6 | 123 | 128 | 139 | 151 | 204 |
| Sept. 6 to Dec. 31 | 120 | 126 | 133 | 142 | 150 |

## CALCULATIONS AND CORRECTIONS

## IF YOU LIVE OUTSIDE NEW ENGLAND

(For New England - See Page Four)

Times ohtained for a place other than Boston by the conversions described telow will in every case be in the war Time of the time zone in which the place lies. Some States by State ordinance do not observe national War Time during tbe whole or part of the year. To obtain the time in everyday use in those States during the period such Statc ordinances are in cffect one hour should be subtracted from the time derived by conversion. If during any part of the year 1945 the United Nations win the final victory and War Time is terminated nationally, one hour should be subtracterl from the times of day obtained trom the Almanac to obtain the time in common use, except in those States or Cities in which War Timo or "daylight saving" time may be continued by State or lncal ordinances.

A direct reading of the figures on the Almanac pages gives informafion that ap1)lies precisely and solely to Boston. The examples which follow interpret the significance of this information and illustrste the way to get the same information for a place outside New England, such as Dallas. The date, April 11, used for the purpose of the illustrations, has been chosen at random.

Sunrise and Sunset. The times of sunrise and sunset at Boston on April 11 are read directly from columns 4 and 6 on page 20. The key letters adjacent to these times, in columns 5 and 7, are indices to the table on page 12 whereby the times of sunrise and sunset at Boston are converted into those for other ker cities, to wit:-

> BOSTON DALLAS

Sunrise
Key Letter

Sunset
Key letter

6:14 A.M.E.W.T. G

Sunrise (Boston) 6:14 A.M.E.W.T. Correction (Column $G$, page 12 ) $+: 52$

Sunrise (Dallas) 7:06 A.M.C.W.T. Sunset (Boston) 7:17 P.M.E.W.T. Correction (Column K, page 12) $+: 35$

Sunset (Dallas) 7:52 P.M.C.W.T.
Dawn and Dark. The approximate times dawn will break and dark descend are found by applying the length of twilight taken from the table on page 9 to the times of sunrise and sunset given on the calendar pages. The latitude of the locality determines the column of the table from which the length of twilight is to be selected.

## BOSTON

(Latitude $42^{\circ} 22^{\prime} \mathrm{N}$. )
Sunrise
Subtract length of
twilight (Column
4 of table)
Dawn brealis
Sunset
Add length of twi-
light
Dark descends

6:14 A.M.
$\frac{1: 39}{4: 35 \text { A.M.E.W.T. }}$

| 7:17 P.M. |
| :--- |
| 1:39 |
| 8:56 P.M.E.W.T. |

DALLAS
(Latitude $32^{\circ} 48^{\prime} \mathrm{N}$. )

| Sunrise | 7:06 A.M. |
| :---: | :---: |
| Subtract length of twilight (Column 4 of table) | 1:28 |
| Dawn breaks | 5:38 A.M.C.W.T. |
| Sunset | 7:52 P.M. |
| Add length of twilight | 1:28 |
| Dark descends | 9:20 P.M.C.W.' |

Sun Slow. The column headed "Sun Slow" is of primary use to sundial enthusiasts. The figures therein tell how slow on each day the time indicated by a properly adjusted and graduated sundial will be of the time inclicated by a clock. On April 11 sun timc in Boston will be 45 minutes slow of Eastern War Time. The time indicated hy a sundial located elsewhere than in Boston is converted to elock time hy applying two corrections, the "sun slow" correction for Boston and that for the locality given in Column I of the table on page 12.

## BOSTON

| Sundial time <br> Sun slow | $3: 34$ P.M. <br> $+: 45$ |
| :--- | :--- |
| Erstern War Time | $4: 09$ P.M. |

## DALLAS

Sundial time
Sun slow
Correction (Col-
umn I, page 12)

10:17 A.M. $10: 17$
$+: 45$
$+: 43$

Length of Day. The figures in the column headed "Length of Day" give directly the length of time the Sun will be above the horizon at Boston. The length of day in other localities is found by subtracting the time of sunrise from that of sunset for each locality. (See Sunrise and Sunset above).

| BOSTON |  |
| :--- | :---: |
| Length of day <br> (From alendar <br> pages) |  |

## DALLAS

| Sunset | 7:52 P.M. |
| :--- | :--- |
| Sunrise | 7:06 A.M. |
|  | Length of Day |
| 12 h 46 m |  |

High Tides. The figures for Full Sea in Columns 11 and 12 of the left hand Almanac pages 14-36 are the times of high tide at Commonwealth Pier in Boston Harbor. The heights of these tides are given on the right hand pages 15-37. The heights are reckoned from Mean Low Water: each day has a set of figures - upper for the morning- and lower for the evening. Since Gulf ports are not beset with the tidal problems of ports on the open ocean, the conversion of the times of the tides at Boston to those of Miami is given by way of illustration.

## BOSTON

High Tide
11:00 A.M.E.W.T.

Height
11.0 feet

## MIAMI

High tide (Boston) 11:00 A.M. Correation page 7 - 3:00

High tide (Miami)
8:00 A.M.E.W.T. Height (Miami) 3.3 feet (11.0 $\times 0.3$ )

Moonrise and Moonset. The procedure for finding the times of moonrise and moonset follows that for finding those of sunrise and sunset except that, for localities outside New England, the constant additional correction taken from Column on page 12 must be applied.

## BOSTON

## DALLAS

Mfoonrise
6:04 A.M.E.W.T.
Key letter

Moonrise (Boston) -6:04 A.M. Correction (Column I, page 12) $+: 43$
Correction (Col-
umn 1) page 12) $+: 04$
Moonrise (Dallas) 6:51 A.M.C.W.T.

Moon Souths. The time the moon souths in Boston is converted to the time it is due south in a locality other than Boston by applying the appropriate corrections from Columns I and on page 12.

BOSTON
Moon souths 12:08 P.M.E.W.T.

## DALLAS

| Moon souths (Boston) | 12:08 P.M. |
| :---: | :---: |
| Correction (Col- | $+: 43$ |
| Correction (Col- | $+: 04$ |

The other information concerning the Moon contained on the left hand Almanac pages applies without correction throughout the United States.

Risings and Settings of the Planets. The times of the rising and setting of the naked eye Planets with the exception of Mercury are given for Boston in the table on page 9. The procedure for converting these times to those of other localities follows that for converting the times of sunrise and sunset given ahove.

Planetary Aspects. The planetary aspects indicated thy the symbols and abbreviations on the right hand Almanac pages 15-37, are explained on pages 4, 5 and 6.

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## PRINCIPAL HOLIDAYS, ETC. IN 1945

America las no nationwide holidays. Each state determines its own. In the table that follows (*) indicates these quite generally observed by all states; (**) indicates those for only certain states; and (***) indicates days usually observed in some localities though probably not observed as holidays. Only continental United States is covered here. The President has asked that no holidays be ohserved by war workers except Christmas.

Jan. 1 (*)
Jan. 8 (**) Battle of New Orleans Jan. 19 (**) Robert E. Lee's Birthday
Jan. 20 (***) Inauguration Day
Jan. 29 (**) McKinley's Birthday
Feb. $12{ }^{(* *)}$ Ahraham Lincoln's Birthday
Feb. 13 (**) Mardi Gras
Feb. 14 (**) Admission Day (Arizona)
Feb. 14 (***) Valentine's Day
Feb. 15 (***) Susan B. Anthony Day
Feb. 22 (*) George Washington's Birthday
Mar. 1 (**) State Day (Nebraska)
Mar. $2(* *)$ Texas Independence Day
Mar. 7 (**) Burbank Day (Cal.)
Mar. 15 (**) Jackson Day (Tennessee)
Mar. 17 (**) St. Patrick's or Evacuation Day
Mar. 25 (**) Maryland Day
Mar. 30 (**) Good Friday (Conn., Del., Fla., La., Md., Minn., N. J., Penn. \& Tenn.)
Apr. 1 (**) State Election (Michigan)
Apr. 2 (**) Arbor Day (Arizona)
Apr. 2 (**) Easter Monday (N. Car.)
Apr. 6 (**) Army Day
Apr. 12 (**) Halifax Day (N. Car.)
Apr. 13 (**) Jefferson Day (Mo., Okla., Va.)
Apr. 14 (***) Pan American Day
Apr. 19 (**) Patriots' Day (Me., Mass.) -
Apr. $21\left({ }^{(* *)}\right.$ San Jacinto Day (Texas)
Apr. 22 (**) Arhor Day (Neb.)
Apr. 24 Arbor \& Bird Day (**) (Mass.)
Apr. 26 (**) Fast Day (N: H.)
Apr. 26 (**) Memorial Day (Fla., Ga., Miss.)
May 4 (**) R. I. Independence Day

May 10 (**) Memorial Day (N. C. \& S. C.)
May 13 (***) Mother's Day
May 20 (**) Mecklenburg Day (N. C.)

May 22 (***) Nat'I Marine Day
May 30 (*) Decoration or Memorial Day
June 3 (**) Jefferson Davis Day (Ala., Ark., Fla., Ga., La., Miss.. S. C., Tenn., Tex. \& Va.)

June 14 (**) Flag Day (Ia., Mo. \& Pa.)
June 15 (**) Pioneer Daý (Idaho)
June 17 (**) Bunker Hill Das (Suffolk County, Mass.)
June 17 (***) Father's Day
June 20 (**) West Virginia Day
July 4 (*) Independence Day
July 13 (**) Forrest's Day (Tenn.)
July 24 (**) Pioneer Day (Utah)
Aug. 1 (**) Colorado Day
Aug. 4 (***) Coast Guard Day
Aug. 16 (**) Bennington, Vt. Battle Day
Aug. 19 (***) National Aviation Day
Aug. 30 (**) Huey Long Day (La.)
Sept. 3 (*) Labor Day
Sept. $9\left(^{(* *)}\right.$ Admission Day (Cal.) Sept. 10 Election Day (**) Maine
Sept. 12 (**) Defender's Day (ad.)
Sept. 17 (***) Constitution Day
Sept. 28 (***) Am. Indian Day
Oct. $6\left(^{(* *)}\right.$ Missouri Day
Oct. 12 (*) Columbus Day
Oct. 27 (***) Navy Day
Oct. 31 (**) Nevada Day
Nov. 1 (**) All Saints' Day (La.)
Nov. 6 (*) Election Day
Nov. 11 (**) Armistice Day
Nov. 23 (**) Repudiation Day (Md.)

Nov. 22 (*) Thanksgiving
Dec. 7 (**) Dclaware Day
Dec. 21 (***) Forefather's Day
Dec. 25 (*) Christmas Day

## 1945] JanUARY, First Month. <br> ASTRONOMICAL CALCULATIONS.

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| $\frac{2}{8}$ | 3 | 22 | 49 | 8 | 22 | 05 | 15 | 21 | 06 | 21 | 19 | 52 | 27 |  | 825 |
| $\stackrel{\circ}{\circ}$ | 4 | 24 | 43 | 10 | 21 | 56 | 16 | 20 | 55 | 22 | 19 | 39 | 28 |  | 810 |
|  | 5 | 22 | 36 | 11 | 21 | 47 | 17 | 20 | 43 | 23 | 18 | 25 | 29 |  | 754 |
| $\bigcirc$ | 0 | 22 | 29 | 12 | 21 | 37 | 18 | 20 | 31 | 24 | 19 | 10 | 30 |  | 737 |

© Last Quarter, 6th day, $8 \cdot \mathrm{~h} .47 \mathrm{~m} .$, morning, W.

- New Moon, 14th day, 1 h. 06 m., morning, E.

D First Quarter, 20th day, 7 h .48 m ., evening, W.
O Full moon, 28th day, 2 h 41 m., morning, W.
KEY Letters refer to corrections table page 12. for all points outside new england.




 3 3 W. 814 р 523 в $909493 \frac{1}{2}$ $910494 \frac{1}{4}$ 5 5 Fr. 814 P 525 B 911505 $912505_{4}^{3}-6$ 913506 $914517 \frac{1}{2}$ $915518 \frac{1}{4}$ $3 \frac{1}{2} 1037$ F 438 Vir 19
 6 6 Sa. 814 р 526 B $77^{2} \mathrm{~S}-8140$ о 527 B 8 8/M. 814 о 528 в 9 9 Tu. 814 o 529 C 1010 W .814 o .530 C ir 11 Th. 813 o 531 c 1212 Fr. 813 o 532 c ${ }^{1} 313 \mathrm{Sa} .813$ o 533 C $1414 \mathrm{~S}^{2} 812 \mathrm{O}^{5} 535 \mathrm{C}$ 1515 M. 812 o 536 C ${ }^{16} 16 \mathrm{Tu} .811$ o 537 C $1717 \mathrm{~W} .8110 \mid 538 \mathrm{C}$ 1818 Th .810 o 539 C 1919 Fr. 810 o 540 C 2020 Sa. 809 o 542 C 2121 S. 808 o 543 C 2222 M. 808 o 544 C ${ }_{23} 23 \mathrm{Tu} .807$ N 545 D 2424 W. 806 N 547 D 2525 Th. 806 N 548 D 2626 Fr. 805 N 549 D 2727 Sa 804 N 550 D 2828 S_8 03 N 552 D 2929 M. 802 N 553 D 3030 Tu. 801 N 554 D 91752 $\left.91852 \quad 9 \frac{3}{4} 10 \frac{1}{4} \right\rvert\, 539 \mathrm{o} 1032 \mathrm{Sgr} 27$ $9195210 \frac{1}{2} 11 \frac{1}{4} 641$ o $11_{\mathrm{M}}^{\wedge} 27 \mathrm{Cap} 28$ $9215311 \frac{1}{4}-7_{\mathrm{M}}^{\mathrm{A}} 41 \mathrm{o}$ 12 $2_{\mathrm{M}^{\mathrm{p}} 24 \text { Cap } 29}$ 9225300 sets - 122 Aqr 1
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1945] FEBRUARY, Second Month.

## ASTRONOMICAL OALOULATIONS.


© Last Quarter, 5 th day, 5 h. 55 m., morning, E.

- New Moon, 12th day, 1 h. 33 m., evening, W.

D First Quarter, 19th day, 4 h. 38 m., morning, W.
O Full Moon, 26th day, 8 h. 07 m., cvening, E.
KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.



Listen . . . a hove the lipless snow,
There's the first small, returning bird,
Made bold by something he must know.
To say the quick and prescient word
That our too timed hearts are slow
To say-but happier since they heard.

Aspeots, Holldays, Heights of High Water, Weathor, eto.


2 Fr .
3 Sa. 4 C
5 M.
6 Tu.
7 W .
8 Th.
9 Fr .
10 Sa.
11 C
12 M.
13 Tu
14 W.
15 Th.
16 Fr.
17 Sa.
18 G
19 M.
20 Tu .
21 W.
22 Th .
23 Fr .
24 Sa .
25 C
26 M .
27 Tu. Purim $\square$ © $\odot 9.0$ [ $\delta \%$ © sup

He who neither thinks for himself
Nor follows another's advice brews
in himself the juice for his own stewing.

## Farmer's Oalendar.

The water's frozen stiff agaiu, and you're lugging from the old well. As near as you can figure it, there's ouly about a month's feed left in the loft, with baled hay selliug at forty dollars a ton. The last snow's busted in the hen house roof. Ma's feeling "peckish" and the price of grain is higher than Gilroy's kite. There you are, knee deep in chores and taxes and government regulations. Take it all in all, the world is just another dish of cold beans.

You don't know it, but somehow things are going to come around-sure as Town Meeting. They start with the mild spell and a sort of hankering you have to let things slide anyhow. You cut Ma an armful of forsythia branches to "force" in the parlor window. Maybe you add a few cuttings from the old apple on the sunny side of the lane. Ma perks up-and you go to Grange meeting. Your neighbors lend a hand with the hen house roof. Then one day san's running-and you're twice as busy as ever-but the smell of the lot, bubbling syrup makes you ynung again. The boys come down to heip after school, and ponr the syrup on the snowr; and make a real spree of eating it. just as you did when you were a kid.

Before you know it you've slid right aronnd the corner into March, and Ma's seen the first robin.

| MARCH, Third Mont |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRONOMICAL CALCULATIONS |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | 23 | 10 | 03 | 16 |  |  | 22 |  |  |  | 02 |
|  |  | 600 |  | 340 | 17 |  |  | 23 |  |  |  |  |
|  | 6 |  | 12 |  | 18 | 05 |  | 24 |  |  |  |  |
| Last Quarter, 7 th day, 12 h. 30 m., morning, Es. New Moon, 13 th day, 11 h .51 m ., evening, W. First Quarter, 20 th day, 3 h .11 m ., evening, E. Full Moon, 28th day, 1 h. 44 m., evening, E. letters refer to corrections table, page t2, for all points outside new england. |  |  |  |  |  |  |  |  |  |  |  |  |
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| 8425 S_642 |  |  |  |  |  |  |  |  |  |  |  |  |
| 8526 M .641 |  |  |  |  |  |  |  |  |  |  |  |  |
| 8627 Tu .639 |  |  |  |  |  |  |  |  |  |  |  |  |
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## D. M.

1/Th. St. David. C. J. Swa

2 Fr.
3 Sa.
4 C
5 M.
6 'Iu.
7 W .
8 Th .
9 Fr.
10 Sa.
11 C
12 M .
14. W.

15 Th .
16 Fr.
17 Sa. 18 C
19 M. 20 Tu . 21 W . 22 Th .
23 Fr.
24 25 26 M. 27 Tu . 28 W . 29 Th . 30.Fr.

31 Sa.

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In. 1943 Tides $\left\{8.9^{9.8}\right.$ winds
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 ठ \& C. Tidos $\left\{\begin{array}{c}11.18 \\ \text { Storm }\end{array}\right.$ St, Patrick Monomoy $\{11.8$ tisater 1902 10.8 threatens.
 St Josenh's Swallows arry $\delta$ 人 $\mathbb{C} .\left\{\begin{array}{l}10.0 \\ 0.4\end{array}\right.$


 may be
around Tides $\{8.1$ Spring





 EOOD Jftoay. Tides $\left\{\begin{array}{l}9.4 \\ 9.2\end{array}\right.$ Smith swam
$200-1: 55: 2$$\quad$ Tides $\left\{\begin{array}{l}9.1 \\ 9.0\end{array}\right.$ Windy.

## Farmer's Calendar.

The fight with the insects begins this month. Go through your orchards with stout pruning shears and cut off the small limbs and twigs girdled with bracclets of caterpillar eggs. Then burn them pronto.
Mend your fences and stone walls and see that your gates are sturdy. Have a thought now to the spring plowing. and check over all your farm machinery. Don't spare the oil and grease. Are the blades for your mowing machine sharp? Have you any extra points for your plow? They don't grow on trees these days.

As the snow leaves the barn yard, there will be a hundred things to pick up, from Junjor's other ski to the top of the gas tank.

Not too late to brced your pigs the early part of this montl.

Put a good coat of oil on the hack porch to preserve it from the hot suns and showcrs of summer. Make use of your rainy days to mend the last of the old apple boses and nail up the new shooks. Fertilize your orcliard.

Have you your spray materials on hand for the apples and peaches? Now is the time to combat oyster shell scale with a dormant apray of oil emulsion or lime sulphur. Pe sure your spray tank is thoroughily cleaned out before you use it.

Make the best of the mud season. It is your last rest before winter. But be sure to take your hoots off ont on the porch. Peace must be hought at any price in the kitchen.

| $1945]$ |  | APRIL, Fourth Month. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASTRONOMICAL CALCULATIONS. |  |  |  |  |  |  |  |  |  |  |
|  | Days. | $0 \quad 1$ | Days. | $0 \quad 1$ | Days. | $0 \quad 1$ | Days. | $0 \quad 1$ | Days. |  |
| - | 1 | 4N. 35 | 7 | $\begin{array}{ll}6 & 52\end{array}$ | 13 | 905 | 19 | $\begin{array}{ll}11 & 13\end{array}$ | 25 | 13.34 |
| . | 2 | $4 \quad 58$ | 8 | $7 \quad 15$ | 14 | 927 | 20 | 1133 | 26 | 1333 |
| $\cdots$ | 3 | 5 | 8 | 737 | 15 | 948 | 21 | 1154 | 27 | 1352 |
| $\stackrel{\text { ® }}{ }$ | 4 | 5 | 10 | $7 \quad 59$ | 16 | 1010 | 22 | 1214 | 28 | 1411 |
| $\infty$ | 5 | $6 \quad 07$ | 11 | $8 \quad 21$ | 17 | 1031 | 23 | 1234 | 29 | 1430 |
| © | 8 | $6 \quad 30$ | 12 | 843 | 18 | 10.52 | 24 | 1254 | 30 | 1448 |

© Last Quarter, 5th day, 3 h .18 m ., evening, W.

- New Moon, 12th day, 8 h. 29 m., morning, E.

D First Quarter, 19th day, 3 h. 46 m. ., morning, W.
O Full Moon, 27th day, 6 h. 33 m ., morning, W.
KEY LETTERS REFER TO CORRECTIONS TABLE PAGE 12. FOR ALL POINTS OUTSIDE NEW ENGLAND.





94 4 W. $626 \mathrm{G} 709 \mathrm{~K} 1244474 \frac{1}{4}$
95 5Th. 624 G 710 K $1246475 \frac{1}{4}$

977 Sa. $621 \mathrm{G} 712 \mathrm{~K} 1252467 \frac{1}{4}$
$988: S-619 \mathrm{G} 713 \mathrm{~K} 1254468 \frac{1}{4}$
99 9 M. 617 G 7 14 K 12.57 46 $99_{4}^{\frac{1}{4}}$
roo 10 Tu. $616 \mathrm{~g} / 716 \mathrm{~K} 13004510 \frac{1}{4}$
roi 11 W .614 G 717 K 13024511
Io2 12 Th. 613 g 718 F $13054511 \frac{3}{4}$ $10313 \mathrm{Fr} .611 \mathrm{G} / 719 \mathrm{~K} 1308.450 \frac{1}{4}$ ro414 Sa. 610 F 720 L 1310441

 roy 17 Tu. $605 \mathrm{~F}|723 \mathrm{~L}| 131 S 443 \frac{3}{4}$ 10818 W. $603 \mathrm{~F} \left\lvert\, 724 \mathrm{~L} \cdot 1321434 \frac{1}{2}\right.$ rog 19 Th. $602 \mathrm{~F} \quad 725 \mathrm{~L} \left\lvert\, 1323+35_{2}^{\frac{1}{2}}\right.$ in 20 Fr .600 F If 21 Sa .559 F -1222S-557r II 233 M. 556 E II 424 'Tu. 555 E ェI 25 W . 553 E 731 м $1.3: 374211$ ı 626 Th. 552 е 733 м $13414211_{4}^{3}$ ェ 1727 Fr .550 е 734 m 1343420 11828 Sa. 549 E $735 \mathrm{~m} 1346410 \frac{1}{2}$ r19 29 S_ 548 E 736 m 134841 12030 M. $546 \mathrm{E} \mid 737$ | M $1350,41 / 1 \frac{3}{4}$


> These dellcate and brave and strong Quick shapes and colors from the earth, Are all delight, but not for long, And all of that ambiguous worth That leaves us staring, when they go, Not sure if they were here or no.


## Farmer'a Calendar.

[^0]High time to get the last of the winter's manure out onto the ficlds. Your spreader is your best friend now. Guard it accordingly. Joung Bill from the High School can ruin it in one five minnte whirl if he is not cantioned to go slowly. One eye of the master sees more than four eyos of his helpers.
Plow as soon as possible. hut following the contours of the land rather than straight $11 p$ and down hill, no matter how gentle the slope. Each year tons of cood top soil are washed away due to planless plowing. Your furrows should be water catchers. water holders. not water cnurses. A dry summer will prove the wisdom of this.

This is a good month to plant out your young orchard trecs. Be sure the holes are dug generously deep and wide, pot-bellied, for the roots need plenty of space and loosened earth around them. If you have time. your may heantify your farm homse and grounds with wild shrubs such as laurel, dogwoods wild azaleas, or some of the hardy lilac from the old cellar hole.

If it is riry, watch out for fires. Beware of the olfl nateh. es of dried grass around the barns and onthuildings.
r'lean. disinfeet, and whitewash the here house inside. "Paint" the ronsts with a strong nicotine solntion. Don't neglect the cow harn Pick up all nld cans and har rols left outsirle. for if there is water in these, they are brending grounds for mosnuitnes.

ASTRONOMIOAL OALOULATIONE.

| a | \| Dayp. | 0 , | Dayz. | $0 \quad 1$ | Days. | 01 | Dayg. | 0 , | Days. | 0 - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | 1 | 15N. 06 | 7 | 1651 | 13 | 1825 | 19 | 1947 | 25 | 2058 |
| 㫛 | 2 | 15.24 | 8 | 1707 | 14 | 1839 | 20 | 2000 | 20 | 2109 |
| \% | 3 | $15 \quad 42$ | 8 | 1723 | 15 | 1853 | 21 | 2012 | 27 | 2119 |
| $\stackrel{\circ}{\circ}$ | 4 | $18 \quad 00$ | 10 | 1739 | 16 | 1007 | 22 | 2024 | 28 | 2129 |
| . | 5 | $\begin{array}{ll}16 & 17\end{array}$ | 11 | 1754 | 17 | 1921 | 23 | 2036 | 29 | 2138 |
| ¢ | 6 | 1634 | 12 | 1810 | 18 | 1934 | 24 | 20 47 | 30 | 2147 |

© Last Quarter, 5th day, 2 h. 02 m., morning, E. - New Moon, 11th day, 4 h. 21 m., evening, W.

D First Quarter, 18 th day, 6 h. 12 m., evening, E.
Full Moon, 26th day, 9 h. 49 m., evening, E.
KEY letters refer to corrections table, page 12, for all points outside new england.











r3r 11 Fr. 533 D 748 N $14154011 \frac{1}{2}$ - sets - $122_{\mathrm{m}}^{\circ} 36$ Tau29






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| 37 |
| 17 |
| 17 |




14ヶ 21 M. 524 C $7580|143440| 8$



1. 4424 Th. 521 C 800 O $14394110 \frac{1}{2} 10_{4}^{\frac{3}{4}}$









## JUNE, Sixth Monta.

## AETRONOMICAI OALCULATIONB.

|  | \| | 0 |  | Daye | 0 |  |  | Days. |  |  |  | Days. |  |  |  | Daya. | 0 | , |
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|  |  | 22 |  | 7 | 22 |  |  | 13 |  |  |  | 19 |  |  |  | 28 |  | 324 |
|  | 2 | 22 | 12 | 8 | 22 | 51 |  | 14 |  | 31 | 16 | 20 | 23 |  | 27 | 28 |  | 322 |
|  | 3 | 22 | 20 | 9 | 22 | 57 |  | 15 |  | 31 | 19 | 21 | 23 |  | 27 | 27 |  | 320 |
|  | 4 | 22 | 27 | 10 | 23 | 01 |  | 16 |  |  | 21 | 22 | 23 |  | 27 | 28 |  | 317 |
|  | 5 | 22 | 34 | 11 | 23 | 06 | 6 | 17 | 23 |  | 23 | 23 | 23 |  | 26 | 29 |  | 314 |
|  | 6 | 22 | 40 | 12 | 23 | 10 |  | 18 | 23 |  | 25 | 24 | 23 |  | 25 | 30 |  | 310 |

( Last Quarter, 3rd day, 9 h. $15 \mathrm{~m} .$, morning, W.

- New Moon, 10th day, 12 h .26 m ., morning, W.

D First Quarter, 17 th day, $10 \mathrm{~h} .05 \mathrm{~m} .$, morning, E.
O Full Moon, 25th day, $11 \mathrm{~h} .08 \mathrm{~m} .$, morning, W.
KEY LETTERS REFER TO CORRECTIONS TABLE PAGE I2. FOR ALL POINTS OUTSIDE NEW ENGLAND.




r 55


















174 23 Sa. 5 S 15 A
175 24 S_ 5 15 A $817 \mathrm{P} \left\lvert\, 15024611 \frac{1}{2} 11 \frac{1}{2}\right.$
176 25 M. 516 A $817 \mathrm{P} \mid 150246$ — 0






| JUNE hath 30 days. |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| The land, Indeed, is brtde Unto the lordly sun, And what shall here betlde. And what shall here be done. Is festival of loveThough man is fed thereot |  |  |  |
|  |  | Ways | armer's Oalenda |
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ABTRONOMICAL OALCULATIONS.

| $\begin{aligned} & \AA \\ & \AA \\ & \dot{\oplus} \end{aligned}$ | y8. | 0 |  | Days. | 0 | 1 | Days. | 0 |  | Da | 0 |  |  | Days. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 |  |  | 7 | 22 | 35 | 13 |  |  | 19 | 20 |  |  | 25 |  | 938 |
|  | 2 | 23 | 02 | 8 | 22 | 28 | 14 | 21 | 40 | 20 | 20 | 39 |  | 26 |  | 925 |
|  | 3 | 22 | 58 | 0 | 22 | 21 | 16 | 21 | 31 | 21 | 20 | 28 |  | 27 |  | 812 |
|  | 1 | 22 | 53 | 10 | 22 | 14 | 10 | 21 | 21 | 22 | 20 | 16 |  | 28 |  | 858 |
|  | 6 | 22 | 47 | 11 | 22 | 06 | 17 | 21 | 11 | 23 | 20 | 04 |  | 29 |  | 844 |
|  | 6 | 22 | 41 | 12 | 21 | 58 | 18 | 21 | 01 | 24 | 18 | 51 |  | 30 |  | 830 |

© Last Quarter, $2 n d^{\circ}$ day, 2 h. 13 m ., evening, W.

- New Moon, 9 th day, 9 h. 35 m., morning, E.

D First Quarter, 17 th day, 3 h. 01 m., morning, W.
O Full Moon, 24th day, 10 h .25 m ., evening, E.
© Last Quarter, 31st day, 6 h .30 m ., evening, W.



| $1945]$ |  | AUGUST, Eiahth Month. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASTRONOMICAL CALCULATIONS. |  |  |  |  |  |  |  |  |  |  |
|  | Days. | $0 \quad 1$ | Dayg. | 010 | Days. | 0 | Days. | 0 | Days. | $0 \quad 1$ |
| \% | -1 | 18N.00 | 7 | 1624 | 13 | 1439 | 19 | 1245 | 25 | 1044 |
|  | 2 | $17 \quad 45$ | 8 | 1607 | 14 | 1420 | 20 | 1225 | 26 | 1023 |
| - | 3 | $\begin{array}{ll}17 & 29\end{array}$ | 9 | $15 \quad 50$ | 15 | 1402 | 21 | 1205 | 27 |  |
| ® | 4 | $17 \quad 13$ | 10 | 1533 | 16 | 1343 | 22 | 1145 | 28 | 9 |
|  | 5 | $16 \quad 57$ | 11 | 1515 | 17 | 1324 | 23 | 11.25 11 | 29 30 | ¢ 858 |
| $\bigcirc$ | 6 | 16 41 | 12 | 1457 | 18 | 1304 | 24 | 1105 | 30 | 858 |

- New Moon, 7th day, 8 h. 32 m., evening, W.

D First Quarter, 15th day, 8 h .26 m ., evening, W.
O Full Moon, 23rd day, 8 h. 03 m. , morning, W.
C Last Quarter, 29 th day, 11 h .44 m ., evening, E.
key lemters refer to corregtons taale, page i2 for all points gutside new enclano.

景 | Length | Full Sea, | D |  |
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| of | Boston. | Bo |  |
| Dayg. | Bos | MoralEven | Rises. |


2 I3 1 |W. $542 \mathrm{D}||758| 141650|$
2142 Th. 543 D 757 N 141450

2164 Sa. 545 D $754 \sim 140950$
217 5. S- $546 \mathrm{D} 753 \sim 140750$
$2 \mathbf{1 8}$ 6 M. 547 D D $752 \mathrm{~N} 14055010^{\frac{4}{3}} 11$
$2197 \mathrm{Tu} .548 \mathrm{D} 751 \sim 14035011 \frac{3}{4} 11_{4}^{3}$ sets $-12_{\mathrm{m}}^{\mathrm{p} 37} 3 \mathrm{Leo} 29$
2208 W. 549 D 749 N 140150
22 I 9 Th. 550 D 748 N 135849
22210 Fr .551 D .747 N 135649
22311 Sa .552 е 7 76 m 135449
22412 S_ 553 е 744 m 135149
22513 M. 554 е 743 м 134949
22614 Tu .555 e 742 m 13 4749
22715 W .556 E 740 M 134448
22816 Th. 557 e 739 m 134248
22917 Fr. $558 \mathrm{E}|737 \mathrm{M}| 34048$
${ }^{2} 3018$ Sa. 559 e 736 м 133748


${ }_{23} 321 \mathrm{Tu} .602 \mathrm{~F}$
23422 W .603 F
${ }_{235} 23$ Th. 604 F 729 L L 132547

23725 Sa. 606 F 7 25L 132046
23826 S_607F 724 L 上 131746
23927 M. 608 F 722 L 13 1445
24028 Tu. 609 F 721 L 131245
$24129 \mathrm{~W}: 610 \mathrm{~F}$ 719 K 130945
24230 Th. 611 G 718 к 130745
24331 Fr. $612|\mathrm{G}| 716 \mathrm{k}|1304| 44$

| $5 \frac{3}{4}$ |  | $7{ }_{\text {M }}^{\wedge} 03$ Tau 23 |
| :---: | :---: | :---: |
| $6 \frac{3}{4}$ | $7 \frac{1}{4} 1241$ D | 757 G'm 24 |
| $7 \frac{3}{4}$ | $8 \frac{1}{4} 120 \mathrm{C}$ | 852 G'm 25 |
| $8 \frac{3}{4}$ | $9 \frac{1}{4} 20505$ | 9 49G'm 26 |
| $9_{4}^{3}$ | $10 \frac{1}{4} 259 \mathrm{~B}$ | 1047 Cnc 27 |
|  | $113_{\text {kid }}^{\text {A }} 56$ B | $11_{\mathrm{m}}^{4} 43$ Cnc\| 28 |
| $11 \frac{3}{4}$ | $11 \frac{3}{4}$ sets | $12{ }^{\text {P }} 37$ Leo 29 |
|  | $0 \frac{1}{2} 8_{\text {P }}^{\text {p }} 42 \mathrm{~N}$ | 128 Leo |
| $0 \frac{3}{4}$ | $1 \frac{1}{4} 9.911 \mathrm{~L}$ | 215 Vir |
| $1 \frac{1}{2}$ | $1 \frac{3}{4} 9388 \mathrm{~K}$ | 300 Vir |
| 2 | $2 \frac{1}{2} 1002 \mathrm{~J}$ | 343 Lib |
| $2 \frac{3}{4}$ | $3 \frac{1}{4} 10251$ | 424 Lib |
| 3 | 41049 G | 505 Lib |
| $4 \frac{1}{4}$ | $4{ }_{4}^{3} 1113 \mathrm{~F}$ | 547 Sco |
| 5 |  | 6 30Sco |
| 6 | $6 \frac{1}{4}$ - | 715 Sgr |
| $6{ }_{4}^{3}$ | $7{ }_{4}^{1} 121{ }^{1} 12 \mathrm{D}$ | S 03Sgr 10 |
| $7{ }^{\frac{4}{4}}$ | 81249 c | S 55, Sgr 11 |
| $8 \frac{4}{4}$ | $9 \quad 133$ B | 949 Cap 12 |
| $9^{\frac{1}{2}}$ | $9 \frac{3}{4} 226$ в | 1044 Cap 13 |
|  | $10 \frac{1}{2} 327 \mathrm{C}$ | $11_{m}^{\text {p }} 40 \mathrm{Aqr} 14$ |
| $11 \frac{1}{4}$ | $11 \frac{1}{2} 4_{4}^{4} 35{ }^{\text {c }}$ | - - |
|  | 0 rises | $122_{\text {mi }} 36 \mathrm{Aqr} 15$ |
| $0{ }_{4}^{1}$ | $0 \frac{3}{4} 8_{\mathrm{m}}^{\text {P }} 39 \mathrm{k}$ | 130 Psc 16 |
|  | $1 \frac{1}{2} 910 \mathrm{I}$ | 223 Psc 17 |
| $1 \frac{3}{4}$ | $2 \frac{1}{4} 939 \mathrm{H}$ | 3 15Ari 18 |
| 2 | 31010 F | 407 Ari 19 |
| 3 | 41043 E | 459 Tau 20 |
| 4 | $4{ }_{4}^{3} 11_{\text {¢ }}^{\text {P } 20 ~} 2 \mathrm{C}$ | 553 Tau 21 |
| 5 |  | 648 G'm 22 |
| $6 \frac{1}{2}$ | $6 \frac{3}{4} 12_{\text {M }}{ }^{\text {a }} 03$ B | 7m4 ${ }_{\text {a }}{ }^{\text {G'm }} 23$ |



See how the moon in August stands
More grave with wonder than before,
Seeing the fullness of these lands,
Whose slow abundance, more and more,
Swells earth's incredible, fertile boon,
Under the staring, sterile moon.


## ASTRONOMXOAL OALOULATIONS．

| $\begin{aligned} & \text { 首 } \\ & \text { 品 } \\ & 0 \\ & 0 \end{aligned}$ | ays． | 0 |  | Days． |  |  | Dayd． | 0 | 1 | Daya． | 0 |  | Deja． | 0 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 |  | ． 15 | 7 | 6 | 02 | 18 | 3 | 46 | 10 | 1 | 27 | 28 | 0 | 53 |
|  | 2 | 7 | 53 | 8 | 5 | 40 | 14 | 3 | 23 | 20 | 1 | 03 | 38 | 1 | 17 |
|  | 8 | 7 | 31 | 0 | 6 | 17 | 18 | 3 | 00 | 21 |  | 40 | 27 | 1 | 40 |
|  | 4 | 7 | 09 | 10 | 4 | 54 | 10 | 2 | 36 | 22 |  | N． 17 | 28 | 2 | 03 |
|  | 6 | 6 | 47 | 11 | 4 | 31 | 17 | 2 | 13 | 28 |  | s． 07 | 20 | 3 | 27 |
|  | 6 | 0 | 25 | 12 | 4 | 09 | 18 | 1 | 50 | 21 | 0 | 30 | 30 | 2 | 50 |

－New Moon，6th day， 9 h． 43 m．，morning，E．
D First Quarter， 14 th day， 1 h． 38 m．，evening，E．
O Full Moon，21st day， 4 h． 46 m．，evening，E．
© Last Quarter，28th day， 7 h .24 m ．，morning，W． key lemters refer to corrections table，page i2，for all points outside new england．





 2496 Th． 6 18，G 706 K 124842 － 0


 253 $\mathbf{1 0}^{2}$ M． 622 H 659 J 123841 25411 Tu .623 н 658 J 123541 25512 W .624 H 656 J 25613 Th． 625 H 654 J 123240 ${ }^{2} 5714$ Fr． 626 H 653 J 25815 Sa .627 н 651 J 25916 － 628 н $649{ }^{\mathrm{J}}$ 26017 M． 629 H 647 J 26x 18 Tu .630 н 646 J 122740 26ュ19 W． 631 I 644 I 26320 Th． 632 I 642 I 264 21 Fr． 633 r .641 I 26522 Sa． 634 r 639 r 26623 S－ 635 I 637 I 26724 M． 636 I 635 I 26825 Tu． 637 I 634 r 26926 W .638 I 632 I 27027 Th .639 I 630 I 27 x 28 Fr． 6401629 I 27229 Sa． $641 \mathrm{I} \quad 627$ H $273 \mid 30$ S＿ $642 \mid 1625$

H $1143|34| 7 \frac{4}{4} \frac{1}{4} 7 \frac{3}{4}$
$12{ }_{\mathrm{M}} 43 \mathrm{~B}$

$12_{11} 09$ Psc 15 103 Ari 16 156 Ari 17 250 Tau 18 345 Tau 19 441 G＇m20 5 39 G＇m 21 636 Cnc 22 | 733 |
| :--- |
| $8_{M}^{A} 28$ |
| Cne 23 |



> Something is over
> Something that will not stay, .
> somgh named however deariy,
> Something will move away
> In a gold, misted going
> Something that we could say
> Was summer, snd see clearly,
> Has gone beyond our knowing


## 1945]

OCTOBER, Tenth Month.
ASTRONOMICAL CALCULATIONS.


- New Moon, 6th day, 1 h. 22 m ., morning, E.

D First Quarter, 14 th day 5 h .38 m ., morming, W.
O Full Moon, 21st day, 1 h. 32 m., morning, W.
© Last Quarter, 27 th day, 6 h. 30 m ., evening, W.
KEY Letters refer to corrections table, page it. for hll points outside new england.


 276
 278 5 Fr. 647 J 617 H $11293211 \frac{1}{2}-5_{\mathrm{M}}^{5} 55$ H $122_{\mathrm{M}}^{\mathrm{s}} 18$ Lib 29


 $\begin{array}{llllllllll}282 & 9 & \text { Tu. } & 652 \mathrm{~s} & 610 & \mathrm{H} & 11 & 18 & 31\end{array}$ 28310 W .653 k 609 G 111631 28411 Th. 654 K 607 G 111331 $28512 \mathrm{Fr} .655 \mathrm{~K} \mid 605 \mathrm{G} 111031$ 28613 Sa. 656 k $604 \mathrm{G} \quad 110730$ $28714 \mathrm{~S}-657 \mathrm{~K} 602 \mathrm{G} 110530$ 28815 M .658 K 601 G 110230 28916 Tu .700 k 59 G 1059.30 29017 W .701 K 558 G 105729 29 r 18 Th .702 F 556 G $29219 \mathrm{Fr} .703 \mathrm{~K} 54 \mathrm{G} / 105129 / 10 \frac{1}{4} 10^{\frac{1}{2}}$ 29320 Sa. $704 \mathrm{~K} 553 \mathrm{~F} 104929 / 11 / 11 \frac{1}{2}$ $29421 \mathrm{~S}-705 \mathrm{~L} 551 \mathrm{~F} 10462911_{4}^{3}-$ 29522 M .707 L 5 $50 \mathrm{~F} \quad 10432900 \frac{1}{4}$


| $29724$ | W. 709 L | 547 F | 103828 | 2 | $2 \frac{1}{4}$ | $838^{\text {в }}$ | 6 | G'm 18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8.25 | Th. 710 L | 546 F | 103628 | $2{ }^{3}$ | $3{ }_{4}^{1}$ | 933 A | 426 | G'm 19 |
| 29926 | Fr. 711 L | 544 F | 103328 | $3{ }^{3}$ | 4 | 1033 в | 525 | Cnc 20 |
| 27 | Sa. 712 L | 543 F | 103128 | $4{ }^{\frac{3}{4}}$ | 5 |  | 623 | Cnc 21 |
| 28 | S-714上 | 542 F | 102828 | $5 \frac{3}{4}$ | $6{ }^{\frac{1}{4}}$ |  | 716 | Leo 22 |
| 29 | M. 715 L | 540 E | 102528 | 7 | $7 \frac{1}{4}$ | $12{ }_{\text {M }} 41 \mathrm{C}$ | 806 | Leo 23 |
| 30 | Tu. 716 m | 539 E | 102328 | 8 | $8{ }_{4}^{1}$ | 145 E | 852 | Vir |
| 30431 | W. 717 m | 538 E | 102028 | 9 | $9 \frac{1}{4}$ | $2{ }^{\text {A }} 47$ F ${ }^{\text {F }}$ | $9{ }_{\text {9 }}{ }^{\text {A }} 36$ | Vir |

> See how the dying leaf,
> Ever more wise than we,
> Turns golden all her grief.
> Knowing that what must be
> Is good-so wise is she

| $\begin{array}{l\|l} \dot{\Sigma} & \dot{8} \\ \dot{\alpha} & \dot{\theta} \end{array}$ | Aspects, Holidays, Helghts of High Water, Weather, eto. | Farmer's Oalendar. |
| :---: | :---: | :---: |
| 11 M | St. Renigius Naple ${ }_{1943}$ \# $\odot \cdot\left\{\begin{array}{l}8.6 \\ 9.4 \\ \text { Rain }\end{array}\right.$ |  |
| 2 Tu | 6\%○Sup. $\left\{\begin{array}{l}8.7 \\ 8.6\end{array}\left[1^{\text {st }}\right.\right.$ ¢ $\gamma 21$. and | month. Have you kept |
| 3 | (invented 1602 dith ( $C$. $\left\{_{9.5}^{9.0}\right.$ warmer. | yourself posted on the best markets for your potatoes, |
| 4 T | Corsica 1943 Tides $\left\{\begin{array}{l}9.3 \\ 9.6\end{array} \quad\left[5^{\text {th }} \mathbb{C}\right.\right.$ on ${ }_{\text {Eq }}$. | squash, apples, etc.? It will |
| 5 | Great snow 6 \% 4 ¢ $6.6 \mathbb{C}$. Tides $\left\{\frac{9 . \dot{B}}{}\right.$ | lave been shiftless of you not to have done so or not to have |
| 6 |  | tuned in on daily market prices, for the financial suc- |
| 7 |  | cess or failure of your whole farm year denends on yóur |
| 81 |  | farm year depends on your ability to sell everything at a |
| 9 I | St. Denis. 14 in. snow tides $\left\{\begin{array}{l}9.1 \\ 9.8\end{array}\right.$ | good price. You are looking for reliable buyers who may |
| 1 | Chinese Double Rep. 10. 1911 Th Tiss $\left\{\begin{array}{l}8.8 \\ 9.4\end{array}\right.$ spell | be counted on to pay you fair |
| ' | Virgins ${ }^{11,000}$ in Peri. $\square \delta \bigcirc$. Tides $\left\{\begin{array}{l}8.5 \\ 9.2\end{array}\right.$ | prices year after year, and every wise farmer has just |
| F | Columbus Day, Azores 1948 Tides $\left\{\begin{array}{l}8.1 \\ 8.9 \\ \text { now. }\end{array}\right.$ | outlets. Bread is better than the song of birds. |
| 13 Sa | Geh. Tlme $\quad$ runs adop. 1884 low. | You may be hard put to it to find harvest help, but here |
|  | 20thS.a.Ut. ¢̧in93. Tides $\left\{_{8.7}^{7.8}\right.$ | again vou should have been |
| M. | $\underset{10 \text { days } 1582}{10}$ Itaes $\left\{\begin{array}{c}7.9 \\ 8.8\end{array}\right.$. Could | foresighted. Your County Agricultural Agent is an ever |
| 16 Tu | Tides $\left\{\begin{array}{l}8.8 \\ 8.2\end{array}\right.$ ( rain | present help in trouble and you may count on the super- |
| 17 W | St. Etheidred. Tldes $\left\{\begin{array}{l}8.8 \\ 0.6\end{array}\right.$ | you may count on the super- |
| 18 Th | St. Luke, $\begin{gathered}\text { Little } \\ \text { Summer. }\end{gathered}$ ¢ 2 O. Tides $\left\{\begin{array}{l}9.6 \\ 10.2\end{array}\right.$ | to let boys and girls off early for just such emergencies as |
| 19 Fr . | Bad floods 1942 Tides $\left\{\begin{array}{l}10.4 \\ 10.7\end{array} \quad\right.$ frequently | yours. Then you will be surprised how many factory and |
| 20 Sa | Trees are bare $\mathbb{C}_{\text {en }}^{\text {on }}$ Eq. Tides $\left\{\begin{array}{l}11.1 \\ 11.1\end{array}\right.$ these | mill workers. if they are on |
| 21 C |  | the night shift, will gladly give you part of their day- |
| M | "End of World" 1844 Tldes $\{111.2$ | light (sleeping) hours. <br> This is the tine when you |
| Tu. | World created 4004 B. C. $\quad$ des $\left\{\begin{array}{l}11.1 \\ 11.9\end{array}\right.$ Clear | must be everywhere at once. |
| W. |  | It is so casy by careless or inexperienced liarvesting to |
| T | St. Grispin, Tides $\left\{\begin{array}{l}10.8 \\ 11.1\end{array}\right.$ colder. | ruin the cream of the crop. How often have you heard the |
| 26 Fr |  | How often have you heara the <br> thump and rumble of apples |
| 27.S |  | dumped from the picking basket into the crate? How |
|  | $22 n 0$ S.af. Ur. Simon Christ ${ }^{\text {S }}$ (he King $\left\{\begin{array}{l}8.7 \\ 9.4\end{array}\right.$ | often have you seen your notatoes speared like a forkful |
| M. |  | of eels? But all's well that |
| Tu |  | ends well-"For a week begun, God sends thread." |
| W |  |  |

ASTRONOMICAE OALCUKATIONS.

| 5 | Daya. | 01 | Daya. |  | Daja. |  | Days. | 0 | Days. | $0 \quad 1$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{8}{4}$ | 1 | 148.28 | 7 | 1619 | 13 | 1800 | 10 | 1930 | 25 | 2047 |
| ${ }_{5}$ | 2 | 14.47 | 8 | 1636 | 14 | 1816 | 20 | 1843 | 20 | 2058 |
| 7 | 8 | 1506 | $\theta$ | 1854 | 15 | 18.31 | 21 | 1957 | 27 | 2109 |
| \& | 1 | $15 \quad 25$ | 10 | 1711 | 16 | 1846 | 22 | 2010 | 28 | 2120 |
| - | 6 | 1543 | 11 | 1727 | 17 | 1901 | 23 | 2022 | 29 | 2130 |
| © | 6 | 1601 | 12 | 1744 | 18 | 1915 | 24 | 2035 | 30 | 2140 |

- New Moon, 4th day, 7 h. 11 m ., evening, W.

D First Quarter, 12 th day, 7 h .34 m ., evening, W. O Full Moon, 19th day, 11 h .13 m ., morning, W.
© Last Quarter, 26th day, 9 h .28 m ., morning, W. KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE I2, FOR ALL POINTS OUTSIDE NEW ENGLAND.

 306 2 Fr. $720 \mathrm{~m} 535 \mathrm{e} 10152810_{2}^{\frac{1}{2}} 10_{4}^{3} 4_{4}^{4} 48$ I 1059 Lib
307 3 Sa. 721 м 534 E : 10132811 11 $\frac{1}{2}$
308 4 S- 722 м 533 E Е $10112811 \frac{3}{4}$ —

3106 Tu .725 м5 30 Е 100628 03 1
3ı1 $7 \mathrm{~W} .726 \mathrm{~m} / 529 \mathrm{E}$
3128 Th. $727 \mathrm{~m} / 528 \mathrm{D}$
3 3 3 9 Fr. 728 N 527 D
$95928 ~ 2 \frac{3}{4}-2 \frac{2}{4}$
31410 Sa. 730 N 526 D
31511 S- 731 N 625 D
31612|M. 732 N 524 d 31713 Tu .733 N 523 D 31814 W .734 N 522 D 31915 Th. 736 N 5 21D 32016 Fr. 737 N 5 20D 3217 Sa .738 N 520 D 32218 S. 739 N5 19D 323 19M. 740 N 5 18D $3 z 420$ Tu. 7420 . 517 C 32521 W .743 o 517 C 32622 Th .744 o 516 C 32723 Fr. 7450 5 15 C 3.284 Sa .7460515 C 32925 S. 7480514 C 33026 M. 7490.514 C $33 \times 27$ Tu. 7500 513c 332 28W. 751 o 513 c
33329 Th. 752 o 512 c 33430 Fr. 7530 . 512 C


| $\dot{\grave{j}}$ | $\dot{\circ}$ |
| :--- | :--- |
| $\dot{=}$ | $\dot{A}$ |
| 1 | 1 |

Aspects, Holidsys, Helghts of High Water, Weather, otc.

Farmer'a Calendar.
1 Th. All Saints, Bougainville $\delta \Psi \mathbb{1 9 + 3} \mathbb{C}_{8,9}^{9.0}$
 3 Sa. St. Hubert. Tides $\}_{9.0}^{9.4}$ Windy
 Fawkes Tldes $\{9.7$ and
 8 Th: Tides $\left\{\begin{array}{c}1942.6 \\ 9.8 \\ 8.6 \\ \hline\end{array}\right.$

Snow

## Luther b. 1483 Indian Tides $\left\{\begin{array}{l}8.2 \\ 9.2\end{array}\right.$

Armistice Summer Tides $\left\{\begin{array}{l}8.0 \\ \text { Dat. } \\ 9.0\end{array}\right.$
St. Martln. begins Tldes $\left\{_{8.9}^{8.0}\right.$ places.

15 Th plentiful King's Name Day 9 pos
16 Fr .
St. Machutus. $\begin{gathered}\text { King's Name } \\ \text { (Belgium) }\end{gathered}$
Day $\{9.3$
Burma
Minsoon over
$\mathbb{C}_{\text {Eq. }}^{\text {On }}$. Tldes $\left\{\begin{array}{c}10.0 \\ 9.9\end{array}\right.$ few
 18 G
$\qquad$ SI. Catherine 26 th S. af. Cairo $\{9.1$ Bear K. Vt. $\left\{\mathrm{s} .8\right.$, $7^{\text {th }}$ 女 stat.
 The Portland French 1 feet $f 8.8$ Colder ${ }_{c}^{\text {conande }}$

 St. Andrew. $\delta 2 \mathbb{C}$. TIdes $\left\{\begin{array}{c}8.9 \\ 8.4 \\ \hline\end{array}\right.$

There is no month more alive, none more powerfully suggestive of the good things of living. Every sense is de-lighted-the smell of burning leares on tingling, frosty evenings; trees black and brittle against the Hunter's moon; the crazy rustle and elatter of leaf skeletons in the corners of the yard.
This is the month of Thanksgiving. The horn of plenty is spilling over in your byres and bins, but if you have eomplaints, too, east them one side quiekly and get down on your knees to God that He in some measure alleviate the suffering and misery of those thousands upon thousands of families who have paid the supreme saerifice that you-and your ehildren might live in freedom.

House and barn. are ready for winter;-plenty of wood in the sheds and cellars, the house well banked with hay or boughs or leaves, all broken panes replaced in the barn, sereens off and storm windows on everything seeure and shipshape.

Now is the time to han! stones out of the fourteen aere field, just the work for this braeing air, but a bitter task in July. Now, too, is the time to eut next year's fence posts, make a real start on that lumbering operation in the pine lot, and haul manure to spread on land that you plan to turn over next spring.

## $1945]$

peCEMBER, Twelfth MOnth.
AgTHONOMICAL OALCUEATIOṄ,


- New Moon, 4th day, 2 h. 06 m., evening, W.

D First Quarter, 12th day, 7 h. 05 m ., morning, E.
O Full Moon, 18 th day, 10 h .17 m ., evening, E.
$\mathbb{C}$ Last Quarter, 26 th day, 4 h. 00 m., morning, E.

|  |  | $\begin{array}{c\|c} 2 \\ \text { Rites: } \\ \text { Rise } \\ \hline \end{array}$ |  |  |  | $\left.\overline{D_{\text {sese }}}\right\|_{\mathrm{m}} ^{0}$ | $\stackrel{i_{0}}{u_{\mathrm{b}}}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 Sa |  |  | [33\| $9 \frac{3}{4}$ | ${ }^{\frac{3}{4}} 10^{\frac{1}{4}}$ |  |  |  |  |
|  | 2 | 550 | 510 C | $9153310 \frac{1}{2}$ | $\frac{1}{2} 11$ | 538 L | L |  |  |
|  | 3 M | 7560 | 511 c | $9143411 \frac{1}{4}$ | ${ }_{4}^{1} 11 \frac{3}{4}$ | $6{ }_{\text {a }}^{4} 40 \mathrm{M}$ | M 11 |  |  |
|  | 4 Tu | 757 o | 511 B | 9133411 |  |  |  |  |  |
|  | 5 W. | 7580 | 511 B | $912350 \frac{1}{4}$ |  | $5_{\text {m }}^{\text {p }} 59$ B | B |  |  |
|  | 6 Th | 759 P | 511 в | 911351 |  | 645 B | B 2 |  |  |
|  | 7 F | 00P | 511 B | $910361 \frac{3}{4}$ | $\frac{3}{4}$ | 739 B | B |  |  |
|  | Sa | 011P | 511 в | 36 |  |  |  |  |  |
|  | 9 S. | 802 P | 511 ${ }^{\text {b }}$ | 09363 |  |  |  |  |  |
|  | 0 M . | 031 | - 511 B | 08 $37 \left\lvert\, 3{ }^{\frac{3}{4}}\right.$ | $\frac{3}{4}$ | $10_{0}^{\text {P }} 51$ E |  | dr |  |
|  | 1 T | 04P | , 511 в | $374^{\frac{3}{4}}$ | 4 |  |  | P |  |
|  | 12 W | 05P | 5 118 | 385 |  | $2^{\text {M }}$ | G |  |  |
|  | 13 Th | 805 P | 511 B | $386 \frac{1}{2}$ |  | 111 H | H |  |  |
|  | 4 Fr | 806 P | 5118 | $397 \frac{1}{2}$ | ${ }^{1} \frac{1}{2} 7$ | 223 I |  |  |  |
|  | 5 S | 807 P | 512 в | 39 8 ${ }_{4}^{1}$ | $\frac{1}{4} 8_{4}$ | 337 K | K 9 | Ta |  |
|  | S | 808 P | -5128 | $9{ }^{\frac{1}{4}}$ |  | 455 L | L 10 |  |  |
|  | 7 M . | 808 P | 512 B | $4010{ }^{\frac{1}{4}}$ | ${ }^{\frac{1}{4}} 10{ }^{\frac{1}{3}}$ | $6{ }_{\text {d }}^{\text {a }} 12 \mathrm{~N}$ | $\mathrm{N} 11_{1}$ |  |  |
|  | 8 Tv | 809 P | 513 B | 044111 | $11 \frac{3}{4}$ |  |  |  |  |
|  | 9 W | 810 P | 513 в | $0341-$ | - 0 | $5_{\text {m }}^{\text {P }} 55$ A |  |  |  |
|  | 0 T | 810 P | 513 B | $12{ }^{1} 0 \frac{1}{2}$ | $\frac{1}{2} 0$ | 659 A |  |  |  |
|  | $1 . \mathrm{F}$ | 11 | 514 | 421 |  | S 0718 |  |  |  |
|  | S | 812 P | 5 148 | $2432^{2}$ |  | 916 D |  |  |  |
|  | 5 | 812 P | - 515 в | $433^{\frac{1}{4}}$ | 1 | 1023 E |  |  |  |
|  | 4 M . | 812 P | - 515 в | 44 |  | $11_{\text {M2 }}{ }^{\text {P2 G }}$ G | G |  |  |
|  | 25 Tu | 812 P | - 516 в | 4 |  |  |  | Vir |  |
|  | 6 W. | 812 P | - 517 в | $04455 \frac{3}{4}$ | ${ }_{4}$ | $12{ }_{\text {M }}{ }^{\text {3 }} 30$ H |  |  |  |
|  | 7 Th | 813 P | - 517 в | 905456 |  | 130 I |  |  |  |
|  | 8 Fr. | 813 P | - 518 в | 905467 |  | 230 J |  |  |  |
|  | Sa | 813 P | -5 19в | 90646 |  | 330 L |  |  |  |
|  | S | 813 P | - 520 в | $906479^{\frac{1}{4}}$ | ${ }^{\frac{1}{4}} 9$ | 430 m |  |  |  |
|  |  | 813 P | -5 20R | 9074710 | 10 | $5{ }_{\text {N }}^{1} 30$ | $\times 10_{\mathrm{n}}^{1}$ |  |  |

> Not yet has any snow not yet Been deep enough or cold enough To steep our hearts so we forget: This snow-month is the month when love So warmed the world that never again Shall love forsake the hearts of men... (Though, now, we redden with the shame Of love's eclipse, we name the name.)


## PLANTING ZONE MAP AND GUIDE

## Courtesy Weather Bureau - U. S. Dept. of Commerce

The map and tables herewith will serve as aids in determining the best planting dates for vegetables. They are based on long time averages of dates of the last Spring frosts. Actually you may find the last Spring frost occurs earlier-or later.

To use this map and table locate the zone you live in on the map. Consult Table 1 in the column marked for your Zone and read off the planting date against the vegetable in which you are interested. You will also note there are Groups 1,2,3 and 4 listed in Table 1. Looking at Table 2, you will find that these four groups are detailed lists of certain vegetables which can, in certain zones, be planted earlier and the dates given in said table correct those listed in Table 1.

It must be borne in mind that the location and exposure of rour plot is a major consideration. A high well drained lot, facing South, may be a week or two carlier than the average lot. Further, the altitude at which you live will alter these tables... one thousand feet of altitude affecting the planting date by as much as two weeks. It is just as well not to get your seeds in too early outside. Look to your greenhouse, lot bed, and cold frames for rushing the season. Vegetables will come along just as fast if they are planted after the season is favorable.

## AVERAGE DATES FIRST AND LAST KILLING FROSTS





## TABLE 1

| Crop | Zone A | Zone B | Zone C |
| :---: | :---: | :---: | :---: |
| Asparagus. |  | Feb. 1 to Mar. 1. | Mar. 1 to 15. |
| Beans. lima | Mar. 1 to 15 | Mar. 15 to Apr. 1. . | Apr. 1 to 15. |
| Beans, snap | Feb. 15 to Mar. 1. | Mar. 1 to 15. | Mar. 15 to 30. |
| Beets. | Feb. 1 to 15. | Feb. 15 to Mar. 1. . | Mar. 1 to 15. |
| Corn, sweet | Feb. 15 to Mar. 1. . | Mar. 1 to 15. | Mar. 15 to Apr. 1. |
| Cucumbers | Mar. 1 to 15. | Mar. 15 to Apr. 1. . | Apr. 1 to $15 .$. |
| Kale | Jan. 1 to Feb. 1. . | Feb. 1 to 15. | Feb. 15 to Mar. 1. |
| Okra | Feb. 15 to Mar. 1. . | Mar. 1 to 15..... | Mar. 15 to 30.... |
| Peas. | Jan. 1 to Feb. 1.. | Feb. 1 to 15. | Feb. 15 to Mar. 1. |
| Rhubarb |  |  |  |
| Salsify. | Feb. 1 to 1 | Feb. 15 to Mar. 1. | Mar. 1 to 1 |
| Spinach | Mar. 1 to do. 15. | Mar. 15 to Apr. 1. | Anr. 1 to 15.... |
| Squash. <br> Group 1 (See Table 2) | Mar. 1 to 15..... | Mar. 15 to Apr. $1 .$. | Apr. $\frac{1}{1}$ to $15 . . . . .$. |
| Group 2 (See Table 2) | Jan. 1 to Feb . $1 .$. | Feb. 1 to $15 . . .$. | -. ......do. do..... |
| Group 3 (See Table 2) | Feb. 1 to 15 | Feb. 15 to Mar. 1. | Mar. 1 to 15. |
| Group 4 (See Table 2) | Mar. 1 to 15. | Mar. 15 to Apr. 1.. | Apr. 1 to 15..... |


| Crop | Zone D | Zone E | Zone F | Zone G |
| :---: | :---: | :---: | :---: | :---: |
| Asparagus | Mar. 15 to Apr. 15 | Apr. 15 to May 1 | May 1 to May 15 | May 15 to June 1 |
| Beans, lima | May 1 to 15 ... | May 15 to June 1 | May 15 to June 15 |  |
| Beans, snap | Apr. 1 to May 1 | May 1 to $15 .$. | May 15 to June 1 | May 15 to June 15 |
| Beets. . . | Mar. 15 to Apr. 15 | Apr. 15 to May 1 | May 1 to 15 .... | May 15 to June $\frac{1}{15}$ |
| Corn, sweet | Apr. 1 to May 15 | Apr. 15 to May 15 | May 1 to June 1 | May 15 to June 15 |
| hale. . | Mar. 1 to 15. | Mar. 15 to Apr. 15 | Apr. 15 to May 1 | May 1 to June |
| O2 | Apr. 15 to May | May 1 to $15 \ldots$ | May 15 to June 1 |  |
| Peas | Mar. 1 to 15. | Mar. 15 to Apr. 15 | Apr. 15 to May 1 | May 1 to June |
| Rhubar | Mar. 15 to Apr. 15 | Apr. 1 to May 1 | Apr. 15 to May 15 |  |
| Salsify Spinach | Mar. 1 to Apr. | $\begin{aligned} & \text { Apr. } 15 \text { to May } 1 \\ & \text { Mar. } 15 \text { to Arr. } 15 \end{aligned}$ | $\begin{aligned} & \text { May } 1 \text { to } 15 \ldots \\ & \text { Apr. } 15 \text { to May } \end{aligned}$ | May 15 to June 1 May 1 to $15 \ldots$ |
| Spinach | Mar. 1 to Apr. 1 | Mar. 15 to Arr. 15 May 1 to June 1 | Apr. 15 to May 1 dune 1 to $15 . .$. | May $\begin{aligned} & 1 \\ & \text { June } \\ & 1\end{aligned}$ to 15 |
| Group 1 (See Table 2). Group 2 (See Table 2). | Mar. 1 to 15 | Mar. 15 to Apr. 15 | Apr. 15 to May 1 Apr. 1 to May 1 | May 1 to |
| Group 3 (See Table 2). | Mar. 15 to Apr. 1 | Apr. 1 to May 1 | May 1 to 15 | May 15 to Junc 1 |
| Group 4 (See Table 2). | Apr. 15 to May 1 | May 1 to June 1 | May 15 to June 15 | June 1 to $15 \ldots$ |

## TABLE 2

## GROUP 1

Broccoli, Brussels Sprouts, Cabbage, Cardoon, Cauliflowier, Celery, Chard.

## GROUP 2

Chives, Collard Plants. Garlic, Leek, Onion Plants and Sets, Potatoes (a), Radishes (b), Turnips (b), Rutabaga (b).

## GROUP 3

Carrots (c), Cress, Endive, Kohlrabi, Lettuce (d), Mustard (d), Onion Seed, Parsley, Parsnip.

## GROUP 4

Eggplants, Muskmelons (e), Pumpkins (f), Sweet Potatoes (f), Tomato Plants (g), Watermelons ( $\mathrm{g}, \mathrm{h}$ ).
(a) Zone F, April 15-May 1, Zone G, May 1-June 1; (b) Zone F, April 15-May 1; (c) Zone E, April 15-May 1, Zone G, May 1-June 1; (d) Zone D, March 15-April 15; (e) Zone F, Junc 1-15; (f) Zone F, June 1-15, Zone G blank; (g) Zone F, June 1-15, Zone G, June 15-30; (b) Zone F, June 1-15, Zone G blank.

## 1944-5 GAME LAWS

Open seasons include both dates. "Rabblt" includes hare; "quall" includes "partrldge" In South; "grouse" Includes Canada grouse, sharptalled, ruffed (known as partridge in North and pheasant in South) and all other members of lamily, except pralrie chlckens, ptarmigan and sage hens. States marked (*) did not have completo laws avallable at press time. VERIFY these tables - we can not guarantce them.
or males only. †Local exceptions.




## MIGRATORY GAME BIRDS - UNITED STATES

## DUCK, GOOSE, BRANT AND COOT

Northern Zone, Sept. 20-Dec. 8 - Iowa, Malne, Michigan, Minnesota, Montana, New Hampshire, New York (Essex, Clinton and Washington Cos. east of D. \& H. R.R. and waters of South Bay only), North Dakota, Ohlo (except Pymatunlng Reservoir), South Dakota, Vermont, Wisconsin.
(Scoters or sea coots may also be taken ln open coastal waters of Maine and New Hampshire from Sept. 15 to Sept. 19, and in those of New York, Connecticut, Massachusetts and Rhode Island, Sept. 15-Sept. 30.)
Intermediate Zone, Oct 14-Jan. 1 - California (except San Bernardino, Riverside and Imperial Cos.), Colorado, Connecticut, 1daho, Illinols, Indlana, Kansas, Kentucky, Massachusetts, Missourl, Nebraska, Nevada. New Jersey, New York, Ohio (Pymatuning Reservoir only), Oklahoma, Oregon, Rhode Island, Útah, Washington. West Virginia, Delaware, Pennsylvania, wroming,
Southern Zone, Nov. 2-Jan. 20 - Alabama, Arizona, Arkansas, California, (San Bernardino, Rlverslde and Imperial Cos. only.). Florida, Georgla, Louislana, Naryland, Mississippi, New Mexico, North and South Carolina, Tenncssee, Texas and Virginia.
Alaska - Two zones: Sept. 1-Nov. 19 and Sept. 21-Dec. 9.
Puerto Rico - Dec. 15-Feb. 12.
WOODCOCK

## Northern New York and Wisconsin - Oct. 1-Oct. 15.

Southern New York (except Long Island), West Virginla and Indlana-Oct. 16-Oct. 30. Long 1sland of New York, New Jersey and Rhode Island - Nov. 1-Nov. 15.
Malne, Minnesota, New Hampshire, Ohlo and Vermont - Oct. 10-Oct. 24; Massachusetts - Oct. 20-Nov. 3; Arkansas and Oklahoma - Dec. 1-Dec. 15; Loulslana and Misslssippi-Dec. 15-Dec. 29; Delaware and Maryiand - Nov. 15-Nov. 29.
Michlgan (Upper Peninsula) - Oct. 1-Oct. 15; remalnder of state - Oct. 15-Oct. 29.
Pennsylvania-Oct. 14-Oct. 28.
Missourl - Nov. $10-$ Nov. 24.
Virginla - Nov. 20-Dec. 4.
Connectlcut-Oct. 26-Nov. 9.
RAIL AND GALLINULE
Sept. 1-Nov. 30, except as follows: Alabama - Nov. 20-Jan. 31; Louislana- Sept 15 -
Dec. 15; Malne and Wisconsin - Sept. 20-Dec. 8: Massachusetts and New York -
Oct. 14-Jan. I: Minnesota - Sept. 16-Nov. 30; Puerto Rico - Dec. 15-Feb. 12; Mary-
land-Sept 1-Oct. 31 ; Mississippl - Oct. 15-Dec. 30.
No open season ln Calitornla; District of Columbia, Hawali, Idaho, lowa, Montana,
Nevada, Oregon. Tennessee and Washington.
MOURNING DOVE
Alabama, Georgia, South Carollna - Sept. 16-Oct. 15 and Dec. 25-Jan. 20.
Arizona, Kansas, Kentucky, Missouri - Sept. l-Oct. 25.
Arkansas and Misslssippi - Sept. 16-Sept. 30 and Dec. 10-Jan. 20; California, Colorado.
Nevada. New Mexico and Oklahoma - Sept. 1-Oct. 12; Delaware - Sept. 16-Nov. 9
Florlda (Dade, Monroe and Broward Countles) - Oct. i-Oct. 31, rest of state, Nov. $20-$ Jan. 15; Idaho-Sept. 1-Sept. 15; Illinols - Sept. 1-Sept. 30; Loulslana - Oct. 15Oct. 30 and Dec. 10-Jan. 20; Maryland - Sept 1-Oct. 15; Minnesota, Sept. 16-Sept. 30; North Caroilna - Nov. 25-Jan. 20; Oregon - Sept. 1-Sept. 15; Tennessee, Sept. $16-$ Nov. 11.
Texas in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, Willamson, Bell, Falls, McLennan, Hill, Navarro, Henderson, Smith, Gregg and Harrlson Countles, and all counties north and west thereof, Sept. 1-Oct. 25 ; In remainder of state but not including Cameron, Hidalgo, Starr, Zapata, Webb, Maverlck, Dimmit, LaSalle, Jim Hogg, Brooks, Kenedy, Willacy Countles, Oct. 20-Dec. 14, In these latter countles, Sept. 15-17-19-21-24 from noon untll sunset, and thereafter from Oct. 20-Dec. 9, from one-haif hour before sunrise to sunset.

Virginia - Sept. 16-Oct. 25.
WHITE-WINGED DOVE
Arizona - Sept. 1-Sept. 15
Texas - in Cameron, Hidaigo, Starr, Zapata, Webb,
Maverick, DImmit, LaSaile,
Jim Hoggs, Brooks, Kenedy
Willacy Counties-Sept. 15-
17-19-21-24, noon to sunset.
BAG LIMITS. Ducks - 10 in aggregate of all kinds including not more than 1 wood duck, and in addition 5 slngly or in the aggregate mailards, pintalls or widgeons. Possession limit 20 in the aggregate of all kinds, but not more than 1 wood duck, and in addition 10 singly or in the aggregate mallards, pintails or widgeons. Geese and brant, 2 but not including blue, snow or whlte-fronted geese, and in addition (A) 4 singly or in the aggregate of snow and white-fronted geese in the Pacific Coast States or (B) 4 singly or in the aggregate of blue and snow geese elsewhere than Pacific Coast states. Possession limit 4 geese, including brant, but not including blue, snow or white-fronted geese and in addition, not more than 8 singly or in the aggregate blue, snow or white-fronted geese. 1n Alexander County, 111., geese may be taken only from one-half hour before sunrlse until noon.

Coot and sora, 25, singly or In aggregate, dally and possession. Rail and gallinule 15 in aggregate; 15 possession. Woodcock 4:8 in possession. Mourning and white-winged doves, 10 in aggregate; possesslon mourning doves 10, white-winged 10. Band-tailed pigeons 10; possesslon 10 .

American and red-breasted mergansers, 25 singly or in the aggregate.
RESTRICTIONS. Closed season on jacksnipe, Ross's geese and swans; on snow geese ln states bordering the Atlantlc Coast, in Idaho, and in Beaverhead. Gallatin and Madison Countles, in Montana, on wood duck in Massachusetts and North Dakota. Live decoys, baitlng, and use of live-stock as "blinds" prohiblted. Mlgratory waterfowl may be taken with bow and arrow, or with shotgun not larger than 10 -gauge, and not capable of holding more than 3 shells. All waterfowl, coot, rails, gallinule, woodcock, mourning and whitewinged doves and band-talled plgeons may be taken from one-hal hour before sunrise to sunset. Federal duck stamp required of all waterfowl hunters over 16 years. Migratory birds may be retained for 45 days following close of season in state where killed.

## POETRY, ANECDOTES AND PLEASANTRIES

Aunt Susie's Revelation
Auut Susie, pillar of her rockribbed New 1 ingland church for more than four scorc years, lay a-dying. A solemin hush pervaded the painfully neat and frugal bedroon, filled now with "brethren" and "sisters" waiting, nournfully yet expectantly, some last jious revelation from those wise old lips.

The "shcpherd" leaned gently over the counterpane. "Aunt Susie, Aunt Susie, can you hear me?"'

A flicker of recognition-and the good man continued: "Aunt Susie, in this vale of tears you have seen much of sorrow and suffering, and yet you have always walked with patience and joy and strength. Oh tell us, Aunt Susie tell us the secret of this. What has sustained you?"

The voice of the minister ceased; the "flock" waited breathlessly while Aunt Susie opened her eyes, aglow now with a fierce and holy light.
"Victuals," she sighed-and Iay down in Abraham's bosom.

## Two-Way Word

"Saippuapuakauppias" 1s a Finnish word meaning "soap maker." Try it from either end.

## Rabbit's Foot

A rabbit's foot will bring good luck
So do not he without it,
They say. But there is evidence That causes me to doubt it.

The average person thinks that one
Will briug good fortune to lim.
But then the rabbit carried four And what good did it do him? Clarence Edwin Flym*

## To Make A Man

Enough water to fill a ten gallon barrel,
Enough fat for seven bars of soap,
Carbon for nine thousand lead pencils,
Phosphorus for twenty-two hundred matchheads.
Iron for one medium-sized nail, Lime ellough to whitewash a chicken coop,
And small quantitics of magnesium and sulphur.

## That's Where It Started

President John Adams iu 1776 suggested that the approval of the Declaration of "Independence" ought to be solemuized with pomp and parade. with shows, ganes, sports, bells, bonfires and illumination."
"In God We Trust" first appeared on a two cent picce issue in 1864.

## Smiles in stone

To epitapb hunters everywhere are presented the following inscriptions (try to fiud them on your "A" book):

At Bar Harhor, Maine:
"I reach my arms out fondly But they clasp the open air; There is nothing of my darling But the shoes he used to wear."

Speaking of soles, this from a New Jersey cemetery:
"Julia Adams
Died of thin shoes, April 17, 1839."
And to rhyme, the last word on Willian Button in Salisbury, England:
"Oh sun, moon, stars, and ye celestial poles!
Are graves, then, dwindled into button holes?
But to return-to Cincinnatithis ambiguous comment :
"Here lies
Who came $10 . . . . . . . . . . . .$. For the benefit of his health."

And for our culinary department, we find the following to a celebrated cook, not far from New York City :
"Peace to his H'ashes."
Also this, from, Bethlehein, N. H. (which has its points): "Meat me in heaven."

But for the epigram of epitaplis we find the following on a grave in Thomaston, Maine:
"My husbond - God knows why."
"The Waverley Magazine and Literary Repository," pablished in 1861, vouclies for the authenticity of the following from a Massachusetts cemetery:
"Sacred to the memory of Miss Martha Gwynn,
Who was so very pure within
She burst the outer shell of sin And hatched herself a cherubim." and
"Here lies William Smith
And, what is something rarish, He was born, bred, and
Hanged in this parish."

## Don't Go Near the Water

(The following verses by Walter P. Neff were inspired by paragraph 8, page 93, of The old Farmer's Almanac for 1943):
All ye who travel down life's way
Give heed to what the sages say:
An honest man who lives aright,
Whose reputation's clean and bright,
Is like a stick without a bend
To mar its straightness end to end.

But place the stick so estraight and true,
Within the water deep and blue,
And, lo, that stick all undeserved
seems strangely and iutensely curved.
And so take heed, ye mortal brood
Who journey straight-your rectitude
And fair repute may seem to totter.
If you but enter deep, blue water.

## Simple Enough

"Well . . .well . . . my little man." said the condescending uncle to his small nephew who had just returned from his first visit to the big city," and how did you find the metropolis?"
"No trouble at all," replied the lad. stifling a yawn. "We just walked out of the station and there it was."

## By Their Colors

When a man is rebellious. he is red; when afraid, yellow; when "straight." white; when loyal, true blue; when inexperienced, green; and when uninteresting, colorless.

Smartweed and Tlcklegrass
Let's not despise just common things,
For here's a truth there is no dodging,
The bird that soars on proudest wings
Comes down to earth for lodging.
Don't hitch your wagon to a star, Young man, for as a rule,
'Twill prove more practical by far
To hitch it to a mule.
We've noticed this when we have eyed
The doings of humanity,
That what within ourselves is pride
In other folks is vanity.
Nixon Waterman
from "In Merry Mood"

For the Psychology Class
Overheard at a Country Fair iu the days wheu horse trading was at its lieight as an elderly, well dressed gent approached a likely stall.
"How much do you want for the horse?"
"Wall, I dunno, but I figger on getting around a thousaud dollars.'

## "Ahem

that's a lot
what would you say if you were offered a hundred ... in cash?"
"I'd take it, mister . . . if you've a mind to offer it."

Whereupon the money changed hands and the new owner moved close to his new charge.
"Say", he asked, "how come you were asking a thousand dollars and then were so willing to accept my offer of only one hundred?"
"Wal . . . mister," was the reply. "I warn't certain but what you was wanting a thousand dollar horse."

## Some Bible Statistics

Number of Books ....... 66
Chapters .................... 1189
Verses . . . . . . . . . . . . . . . . . 31,173
Words . . .................... 773,692
Letters . . . . . . . . . . . . . . . . 3,566,480
Middle and Shortest
Chapter ............ Psalins 117
Shortest Book ............ 111 John
Shortest Verse .........John 11:35

## An Ancient Prayer

(to be seen on wall of an old inn at Lancashire, England)
Give us 0 Lord a bit o' sun
A bit o' work and a bit o' fun
Give us all in the struggle and splutter
Our daily bread and a bit of butter
Give us our health, our keep to make
An' a bit to spare for poor folks' sake
Gives us sense, for we're some of us duffers
An' a heart to feel for all that suffers
Give us too a bit o' song
An' a tale, an' a book to help us along
An' give us our share o' sorrow's lesson
That we may prove how grief's a blessing
Give us 0 Lord a chance to be
Our goodly best, brave, wise and free
Our goodly best for ourself, and others
Till all men learn to live as hrotliers.

## OLD FASHIONED PUZZLES

1. $\boldsymbol{R} \mathbf{U}$ A Muster-Day Yankee
2. What was the origin of Muster-Day?
3. During what pcriod were Musters held?
4. What werc the age limits for men liable for Muster duty?
5. Who appolnted the time for Muster-Day?
6. What men were exempted from the service?
G. When was the Muster annually held?
7. What was the area of the Muster-Field?
8. What did the wandering minstrels sing at the Musters?
9. Who paid for the Muster-Day refreshments?
10. What were the Muster-Day food staples?
11. What were the Muster-Day beverages?
12. How werc the casks and jugs kept cool?
13. What causcd the abolition of the Muster?
14. And a question which has puzzled many a Yankee patriot for many a year"Did the Muster-Day exist primarily for the soldier or for the spectator?
(Jason Almus Russell in Yankee)

## 2. Numerical Enigma

Composed of sixtcen letters. The 1, $7,14,9$, is a company. The $3.12,8,11$, is a girl's name. The $10,15,4,13$ is a number. The 16 . 2.5 .6 , is an examination. The whole is good advice from Shakespeare.

## 3. Word-Syncopations

Take one word from out another, and leave a complete word.

1. Take a staff from a burlesfue, and lcave to reward. Take to free from a sceptre, and leave a covering. 3. Take to fasten from a sick person, and leave to gasp. 4. Take to fit from a ship of war, and leave fortune.

## 4. Cross-Word Enigma

My first is in yoke, but not in pair
My second in atnosphere, not in iar;

My third is in drink, but not in sip;
My fourth is in deck, but not in ship;
My fifth is in cut, but not in knife;
My sixth is in woman, but not in wife;
My seventh is in war, but not in strife;
My eighth is in swinc, but not in cattle:
My whole is the name of a noted battle.

## 5. Metagram ${ }^{-1}$

I am extensively used by shoemakers. Beheaded, I become an instructive story; behead again, and I am cultivated. Divide my whole into two equal parts, and each fart becomes a reversible word, the first meaning a mineral, the second powerful; read backward, my first is changed into blows, my second into an island in the Mediterranean Sea. Omit my first two and last two letlers, and I an a native of an Eastern Desert country, What is my whole?

## 6. Riddle

I'm part of a flower, a stem, and a leaf.
The gay love me not, for I'm always in grief.
The proud and the lowly alike know me not;
But the lonely and weary are never forgot.
I am not a day, yet I make up the week,
And for me in years, not in vain will you seek.
No musician am I, yet in bells hear me chime;
And will you but hasten, I'm always on time.

## \%. Mathenatical Puzzle

I am a word of seven letters, the sum of which is 752 .
$\mathrm{My} 3 \div \mathrm{my} 1=\mathrm{my} 7 \div 10$.
My $7 \times m y 4=1 / 10$ of my 3 .
My $7 \times(1 / 10$ of my 1$)=\mathrm{my}$.
My $3 \div 5=$ my $6 \times$ my 5.

## WORD CHARADES

1
My first, to shield myself from my third, wears my second. Ify whole is an island of the United states.

## 2

My first is made of corn that's ground;
My second in every house is found;
My whole just peeps above the ground,
And wears a little cap that's round.

## 3

Of traitors Arnold was the worst,
Yet Englishmen called him my first.
My second comes to all good men
Who reach their threescore years and ten.

My whole was by a heathen horde
Exalted. worshipped, feared, adored;
But fell to earth, and perished, prone,
By Hcbrew courage overthrown,

## 4

Ho: fill your glass to comrades gay,
Let song and laughter burst; Then fill your glass to those. away,
And fill it to my first.
Go bring a jug of $m y$ second up, Bring flagons of rare old wine,
And fetch the cherished lovingcup;
We'll drink to mine and thine.
Now, who to mix this draught is skilled?
we want no bitter bowl
Like that which Dickens said was filled
With treacle and my whole.

## 5

My first in radiant robes arrayed, Or draped in gloom, or drowned in tears;
My next, as Holy Writ hath said,
Dwells in the sunlight, moonlight, stars.

My whole a flaunting beauty bright,
Born for the morning's festal ray;
Floating in colors, bathed in light.
Dancing the gayest of the gay.
But when dark hours come stcaling on,
My airy graces all are gone;
The frail, brief vision of delight
Slirinks fainting, fainting out of sight,
Phantom of beauty, quenched in night.

In gorgeous splendor, once upon a time
My second reigned in Africa's sunny clime;
A slave prowoked his monarch's royal ire,
And stond before liim under sentence dire.
"My first. my last," he stammered, "pity me!
Must I obey thy horrible decree?
Oh, thou who over millions last control-"
One word the magnate uttered, 'twas my whole.

## 7

My first was a scholarly Scotch man of note,
Discourses and essays he learnedly wrote,
My second was found in the post, such a scrawl!
That letter was ncver opened at all.
My third's made of flesh and sinew and bone,
My first, I suppose, had two of his own;
My whole is a man delightful to folks
Who enjoy reading jocular jingles and jokes.

## 8

A wise old proverb advises all To catch my first if my last should fall.
A poet, who with genius glowerl. Wrote to my whole a famous ode.

## GESTATION AND REPRODUCTION T'ABLE

| Designation | Proper age for reproduction | Period of the power of reproduction in years | No. of Feniales for one Malc | Period of Gestation and Incubation |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Shortest period, days | Mean period, days | Longest period, days |
| Mare | 4 years | 10 to 12 |  | 322 | 347 | 419 |
| Stallion | 5 | 12 to 15 | 20 to 30 | 240 | 283 | 321 |
| Cow | $3{ }^{3} 3$ | 10 to 14 8 to 10 | 30 to 40 | 240 | 25.3 |  |
| Ewe | 2 | 6 |  | 146 | 154 | 161 |
| Ram | 2 " | 7 | 40 to 50 |  |  | 143 |
| Sow | 1 " | 6 |  | 109 | 115 | 143 |
| Boar. . | 1 " | 6 | 6 to 10 |  | 156 | 163 |
| She Goat He Goat | 2 2 2 | $\begin{aligned} & 6 \\ & 5 \end{aligned}$ | 20 to 40 | 150 | 150 | 163 |
| He Goat. | 2 | $\stackrel{5}{5}$ to 12 | 20 to 40 | 365 | 380 | 391 |
| He Ass. | 5 " | 12 to 15 |  |  |  |  |
| She Buffrlo. |  | 8 |  | 281 | 308 60 | 335 63 |
| Bitch. | 2 " | 8 to 9 |  | 55 | 60 | 63 |
| Dog. . | 2 "، | 8 to 9 |  |  | 50 | 56 |
| She Cat | 1 "، | 5 9 to 6 |  | 48 |  |  |
| He Cat | ${ }^{1} 6$ months |  | 5 to 6 |  | 28 | 35 |
| Doe Rabbit Buck Rabbit. | $\frac{6}{6}$ months | 5 to 6 5 to 6 | $30$ | 20 | 28 |  |
| Cock . . . . . . . | $6{ }^{\circ}$ | 5 to 6 | 12 to 15 |  |  |  |
| Hen. |  | 3 to 5 |  | 19 | 21 | 24 |
| Turkey . . . . . . . |  |  |  | 24 | 26 | 30 |
| Duck. . . . . . . |  |  |  | 28 | 30 | 32 |
| Goose. . . . . . . . |  |  |  | 27 | 30 | 33 |
| Pigeon. . . . . . . |  |  |  | 16 | 18 | 20 |
| Pea Hen. . . . . |  |  |  | 25 | 28 | 30 |
| Guinea Hen. . . |  |  |  | 20 | 23 | 25 |
| Swan. . . . . . . |  |  |  | 40 | 42 | 45 |
| Hen on Duck's Eggs . . . . . . . |  |  |  | 22 | 30 | 3.4 |

# DURATION AND FREQUENCY HEAT SEASON 

|  | In heat for | Reoccurs if not bred |
| :--- | :---: | :---: |
| Mares | 6 days | 3 to 6 weeks |
| Cows | $2-3$ days | 3 to 4 weeks |
| Ewes | $2-3$ days | $17-28$ days |
| Sows | $2-4$ days | 21 days |
| Bitches | $5-7$ days | $3-6$ months |
| Cats | $3-15$ days | 4 months |

## AGE EXPECTANCY

Indian Ocean Turtle 300 yrs., Saddleback Tortoise 100, elephant, 95, American alligator 75, Goose 44-65, European Eagle-Owl 62, So. American Condor 52, Parrot 50, Golden Eagle 46, Brazilian Boa Constrictor 23, Python 18. Seventeen cats are known to have lived 21 to 31 years. Tommy Bond of Whitewash, Saskatchewan was born in 1904 and died in 1935. Cat expectancy, however, is about 15 years. The oldest living gorilla in captivity in the U. S. - Ngagi at the San Dicgo Zoo who was 17 in 1943.


HOW ABSORBINE WORKS: It speeds the blood flow to the area affected by increasing local circulation. This in furn speeds the removal of waste matter from these areas. Two ounces in a quart of wash fends to prevent stiffening or chilling.

ASTANDBY for over 50 years, Absorbine is used by many leading veterinarians for lameness, swellings, puffs and bruises. Absorbine speeds the flow of blood to the injury to help carry off the congestion. Usually swellings are relieved in a few hours.

Absorbine will not blister or remove hair. It is not a "cure-all" but a time-proved help in relieving fresh bog spavin, windgall, collar gall and similar congestive troubles. $\$ 2.50$ for a LONG-LASTING BOTTLE that will prove its value many times! At all druggists.
W. F. Young, Inc., Springfield, Mass.



## PRACTICAL METHODS OF FOOD PRESERVATION

## By LOUISE PRYOR SKILTON

When the first seed catalogues appear, it is high time to make plans for the food that is to be held iu reserve for winter use. Plans for food preservation should parallel plans for planting. What are the foods that will be out of seasou during the winter in your section of the country? Or hard to obtain? Or expensive? What are the foods you will need to add variety aud food value to your meals?

When you lave the answer to thesc questions you still should ask yourself "How much of these foods will I need?", and "Which is the best method of food preservation for me to use?"

Ever since the colonists dried pumpkin and corn, made sauerkraut or salted codtish, homemakers have used the food that was at liand and the methods that were possible with the equipment available.

Present day lomemakers have a much wider choice of both foods and methods. But the homemaker must be practical and she is likely to work on the same principle that the colonists did. Being modern, however, she gives particular emphasis to the nutritive value of the foods and how it may be retained during preservation. What are the present day methods of food preservation?

HOME STORAGE of fruits and vegetables is highly desirable for any crops that can be brought to maturity at the proper time for storage. A special planting may be necessary for this purpose. Foods so stored will have higher food value than if processed in any way and the extra labor of processing is not required.

Usually vegetables dry out quickly unless they are stored in a damp place with the temperature as low as possible without frcezing but there are certain exceptions: onions and dried beans and peas require cool, dry storage and pumpkins, squashes and sweet potatoes are best when placed in fairly cool and moderately dry storage places.

The well-ventilated, cool, cellar, the spccially built-in storage room or the out-door storage pit should all be kept in a clean, sanitary condition. Movable containers are easier to clean than bins. Conditions favorable for the storage of vegetables may also be used for fruits such as apples and pears that mature late in the season. It is weht to remember that apples absorb odors from such vegetables as cabbages, turnips or potatoes and should therefore be stored apart from them.

Families living in cities, especially those in apartments, find home storage a problem hut it is possible to effect substantial savings by buying in wholesale amounts, if proper storage can be arranged.

The United States Department of Agriculture in answer to many inquiries, says, "It is not possible even in cold storage to hold peaches, tomatoes, peppers, eggplants, and the nore common types of watermelons and muskmelons in satisfactorily edible condition for more than about a month." This and other specific directions for Home Storage of Vegetables and Fruits appear in Farmers' Bulletin, No. 1939, issued by the United States Department of Agriculture.

DRYING is one of the oldest methods of food preservation and is done in the simplest way by sun-drying. In clear, dry climates some fruits and vegetables may be dried out-doors or in sunny windows. Drying with controlled heat shortens the time and protects color and flavor.

Only fruits and vegetables that are fresh, ripe, and sound should he used. They should be handled carefully to prevent hruising. Because they will discolor when cut, a sharp knife of stainless stecl, glass or plastic should he used. Exposure to the air, even if the work is done with speed, causes changes in color and odor and, to prevent them. special treatment is recommended in Farmers' Buhetin No. 1918, "Drying Foods for Vietory Mcals," also issued by the United States Department of Agriculture. This bulletin gives plans for building and using different types of driers.
 the correct temperature must be maintained thronghout drying. in general this is between $125^{\circ}$ and $160^{\circ} \mathrm{F}$., although beets should never
be heated over $150^{\circ} \mathrm{F}$. Specific directions and temperatures are given in Bulletiu No. 1918.

When ready for storage, dried fruits and regetables should be nlaced in moisture-proof containers of a size adapted to size of the family.

SALTING AND BRINING as methods of food preservation are not recormended by modern authorities except for the making of sauerkraut or sauerbratell. Other foods require so much soaking to remove the salt that their food values are completely lost.

CANNING, like other methods of food preservation, requires the use of clean, fresh, sound foods. Fruits and vegetables should be graded for size and ripeness, clcaned, and washed thoroughly.

Acid foods, including tomatoes and fruits may be processed in a hot-water bath at boiling temperature, $212^{\circ} \mathrm{F}$. Non-acid foods, including the vegetables, must be processed in a pressure canner in order that a temperature of $240^{\circ}$ to $250^{\circ} \mathrm{F}$. may be obtained.

The homemaker should understand the care and use of her pressure canner as an ellgineer with his engine. She should follow the directions that came from the manufacturer with the canner and for further information she should secure a leaflet issued by the Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, United States Department of Agriculture, Washington, D. C. "Take Care of Pressure Canners."

Jars and closures for canning must be free from cracks, chips, and dents. If the lightning-type of jar is used the wire clamp may need tightening. If rings of synthetic rubber are used it is safe to boil them in advance as, occasionally, they have been thought to develop an unpleasant flavor in the product. For a dozen rings allow a quart of water and a tablespoon of soda; boil ten minutes.

Jars and caps (not metal closures) should be washed, rinsed and placed in a pan of warm water. This may be heated to bolling just before the jars are filled. Closurcs with rubber "made on" should be dipped quickly into boiling water just before they are to be used.

Food to be blanched may be placed in a wire basket, colander, or large square of cheesecloth and dipped into boiling water or subjected to steam. This blanching period is timed carefully and the produce is then plunged into cold water to cool. Blanching is doue for ease in removing skins as of peaches or tomatoes or to shrink the food before packing as in the case of greens.

Jars should be packed quickly, very quickly. This means that equipment and products should be ready. It also means that not too large an amount should be undertaken at one time. Jars should be packed moderately tirht; especially with corn, shell beans and peas a head space should be allowed for expansion. On the other hand, tomatoes should be pressed in the jar so that extra juice overtiows and may be saved if the jar is placed in a bowl or suitable container. Greens should be pressed into the jar lightly and cut cross-wise from top to bottom of the jar with a sharp knife. If salt is to be used, it should be added when the jar is about three-quarters filled.

Before closures are adjusted, the tops of jars should be wiped with a clean cloth. For satisfactory results, it is necessary to use cxactly the method correct for the type of jar used. For cconomy's sake, jars in which other food products as coffee, salad dressing or peanut butter have been purchased may be used. A leaflet "Wartime Canning of Fruits and Vegetables" (another publication of the Bureau of Human Nutrition and Home Dconemics) gives a complete description of the various closures and their uses. It is most useful for the home canner. This bulletin also gives the most recent Canning Tables both for foods processed by water bath and by pressure canners. It is most important to use the correct time-for underprocessing results in spoilage.

When processing is completed, the jars are removed from water bath or canner and the seal completed, if necessary.

Jars should be placed well anart on a folded cloth to cool and they should be protected from drafts. Keep the jars right side up. When
thoroughly cool, remove the screwbauds or caps that have a glass or metal top underneath, if such type closures have been used.

Test for leaks by tipping the jar when it is cold. If the seal has not been completed, and the jar leaks, use the contents at oncc or lueat the contents and process again in another jar. Wipe the jars, label with the name of contents and the date. Store iu a dark, cool, dry place. The ideal temperature is between $40^{\circ}$ and $50^{\circ} \mathrm{F}$. Freezing does not spoil canned foods but may crack the jar with rcsulting loss. Or if stored in too warm a place, .jars of food may spoil. All jars should be examiued for bulging rubber riugs, gas bubbles or leakage before they are opened; spurting liquid or "off odor" wheu they are opened. All food that is in any way doubtful shonld be discarded without hesitation.

FREEZING as a method of food preservation has become justly popular and in time may be used more commonly than cauning. At present its use is limited by the amount of equipment available. This metlod has much iu its favor as it retains the natural color, flavor and vitamin value of foods to a greater degree than any other method of preservation. Locker space or individual freezing units are the goal of progressive homemakers of 1945!

Freezing is just the reverse of canning in which heat is used to prevent spoilage. In freezing, the low temperature retards changes in the products but such changes will begin as soon as the food is thawed so it should be used at once. Fruits and vegetables at their prime are frozen rapidly, kept at $0^{\circ} \mathbf{F}$. or slightly below. Vegctables that have been preserved by freezing successfully include asparagus, broccoli, brussels sprouts, cabbage, cauliflower, lima beans, soybeans, peas, snap beans, sweef corn, spinach, swiss chard and pepper's. Celery, cucumbers, lettuce and whole tomatoes are not yet recomwended for this method. Fruits that may be frozen include a great variety of berries, cherries, peaches; grapes are apparently not satisfactory.

When the foods are prepared some are pre-cooked. Sirups and brines, if used, should be cold when added. The product is packed in tin, glass, or moisture, vapor-proof cartons, especially made for the purpose. The food should be divided into the amount that will be needed for a meal or two and packed with the necessary head space for expansion.

The container should be sealed. It is interesting to note that the cellophane containers are sealed by pressing the edges with a hot iron. In this process, the product is labelled with name and date at this point.

Rapid freezing, desirable to produce a high quality of product, depends upon the temperature, the wrappings and the size of the package.

When ready to use, if the food is to be cooked, drop it into a small amount of boiling water while it is still frozen; break apart, gently, with a fork. Bring water to boiling. point and complete cooking as quickly as possble. This short cooking period is a most important factor in retaining color, flavor, and high nutritive value of the food.

Frozen fruits are most frequently used uncooked. They are served in the same ways as fresh fruits. Crushed fruits may be defrosted and used on ice creams or in shortcakes.

Anyone anticipating the purchase of a freezing unit when they are available will be interested in "Preparing Home Grown Vegetables and Fruits for Freezing," a timely leaflet prepared by the Eureau of Agricultural and Industrial Chemistry, Agricultural Research Administration, United States Department of Agriculture, Washington, D. C.

Whichever foods the homemaker wishes to preserve and whichever method is best for her, there may be specific problems in her particular community. There are variations due to soil conditions, to lumidity, to altitude or other causes. These problems should be referred to the county extension service or to the State Agricultural Experiment Station for answer.

Ask your Senator for copies of the government bulletins mentioned.

## VEGETABLE RECIPES

## AZTEC BEANS

3 cups cooked kidney beans
$11 / 2$ cups canned tomatoes
1 green pepper, coarsely chopped
1 onion, coarsely chopped
1 cup cooked meat, (optional) cliopped

1 teaspoon salt
$3 / 4$ teaspoon mustard
3/4 teaspoon curry powder
$11 / 2$ tablespoons molasses
$1 \%$ tablespoons sugar
4-6 strips bacon

Mix beans, tomatoes, pepper, onion, meat (if used) in a baking dish and add salt, mustard, curry powder, molasses and sugar. Fry the hacon until almost crisp. Place partially cooked bacon on top of mixture in baking dish. Bake in hot oven, $400^{\circ} \mathrm{F}$. for 30 minutes. Serves 4 .

## A GARDEN OMELET

4 egg yolks
$1 / 2$ cup milk
1 teaspoon salt
$1 / 4$ teaspoon pepper
2 cups cooked vegetables as corn, peas, chopped carrots and celery.
Beat egg yolks until light and add milk, salt and pepper. Add vegetables dusted with flour. Fold in egg whites, beater stiff. Melt fat in frying pan, turn in omelet mixture, cook slowly on top of stove until it begins to brown underneath. Place in slow oven, $325^{\circ} \mathrm{F}$. for $20-25$ minutes. Remove to hot platter and scrve at once. Garnish with bacon curls. Serves 4.

## VEGETABLE CHOWDER

1 cup carrots, sliced
$1 / 2$ cup green peas cup celcry, chopped cup cabliage, chopped onion sliced
$11 / 2$ cups potato sliced
Cook carrots, peas, and celery in small amount of boiling water about 10 minutes. Add cabbage, onion and potato and continue cooking until vegetables are tender. Season witli salt and pepper, add butter and milk. Rehcat and serve. Serves 6 .

## JELLIED CIDER SALAD


t teaspoon salt
1 teaspoon salt
1/4 teaspoon pepper
$2^{1 / t a b l e s p o o n s}$ butter or fortified margarine
1 quart milk
se cup of cider in which to soften gelatine. Heat remainder of cider to the boiling point; add gelatine and stir until dissolved. Add salt. Cool misture and when it is the consistency of egg white fold in apple, celery, and nuts. Place in individual molds and chill. Serve on nests of cress. Makes 6 .

## DELMONICO POTATOES

2 cups white sauce
$1 / 2$ cup cheese
$21 \not 2$ cups cooked potatoes, diced ${ }_{3}{ }^{2}$ hard-cooked eggs, sliced
lrepare white sauce and add cheese. Arrange in a greased baking dish a layer of potatoes, a layer of eggs and corer witli cheese sauce. Repeat, having cheese sauce on top. Cook in hot oven, $400^{\circ} \mathrm{F}$. until sauce bubbles. Serves 6 .

White Sance
4 tablespoons butter or fortified margarine
4 tablespoons flour
$1 / 2$ teaspoon salt
$1 / 4$ teaspoon lepper
(2 cups milk
Melt butter or margarine. Stir in flour, salt and pepper. Add milk gradually. Platc over hot water. Cook 15 minutes.

## ISAKED MINTED CARIROTS

2 cups carrots, sliced crosswise
1/2 teaspoou salt
1/4 cul brown sugar
Select youner carrots, wath, scrape arrots, wash, scrape, cut in slices. Place in greased rasserole, spriukle with salt and sugar and dot with butter. Cover and lake in moderate oven, $350^{\circ} \mathrm{F}$. about to minutes. Uncover, sprinkle with mint and bake about 10 minntes longer. Serves 4.

## Year after year housewives find UNDER WOOD DEVILED HAM <br> a most versatile and delicious food

Fine Savory Ham, minced to perfection and blended with rave spices to produce the famous flavor found ONLY in Underwood's!


TRY THESE RECIPES:

- A Year-round Favorite with all the family
- It's more than the favorite Sandwich Spread of the Nation - It's a tempting, nurtritious food that adds rare flavor and goodness to dozens of dishes


## Sunday Night Salad

4 good-sized tomatoes
3 pimentos, chopped fine
$1 / 2$ cup celery, chopped fine
1 head lettuce
Unsalted mayonnaise
One can UNDERWOOD Deviled Ham
Remove tops of tomatoes and seoop out centers. Place tomato cups on ice, to chill. Blend UNDERWOOD Deviled Ham with mayonnaise. Chop tomato centers and mix with pimentos and celery. Combinc UNDERWOOD Deviled Ham and mayonnaise with this mixture. Fill tomato cups heaping full, and serve in nest of lettuce leaves. This quantity will scrve iour persons.

## Stuffed Celery Canape

Clean and cut celery stalks into twoinel lengths and stuff with UNDERWOOD Deviled Ham moistened with Roquefort and cream cheese. A little fincly clopped green pepper gives an added touch of flavor and attractiveness.

## Deviled Ham and Peanut Butter

2 parts UNDERWOOD Deviled Ham 2 parts peanut butter
Small strips of bacon
Toasted crackers
Spread mixture on crackers. Place under salamander and bake slowly; garnish with small strips of broiled bacon.

## Deviled Ham and Egg

## Hard-boiled eggs,

 chopped fine Mayonnaise to moisten UNDERWOOD Deviled Ham Mix the ham and eggs thoroughly together with the mayonnaise, and spread between thin slices of bread, cut in desired shape.
## Deviled Ham Stuffed Peppers

4 large green peppers
2 cups bread crumbs
1 cup tomato sauce or canned tomato
1 small onion, chopped fine
1 tablespoon melted butter
$1 / 8$ teaspoon pepper
One can UNDERWOOD Deviled Ham
Split peppers in halves, lengthwise, carefully removing membrane and seeds. Parboil five minutes in boiling salted water. Mix UNDERWOOD Deviled Ham, crumbs and seasoning, and fill halves of peppers. Cover tops with fine buttcred ${ }^{\circ}$ crumbs, and balse in a hot oven until peppers are tcnder.

## Deviled Ham and Poached Eggs

## Buttered toast, cut in rounds

UNDERWOOD Deviled Ham

## Poached eggs

SET rounds of toast in oven for five minutes. Then spread with UNDERWOOD Deviled Ham and place a poached egg on each round of toast. Scrve immediately.

CAUTION! Be sure you get the ORIGINAL Deviled Ham. Ask for Underwood's BY NAME and always look for the famous Red Devil trademark. Sterling Silwer RING
and Matching EARRINGS


Either the ring or earrings can be worn separately but together they are truly captivating. The precious Sterling Silver ring is extra wide. Both the ring and earrings are beautifully embossed with the very newest "Forget-Me-Not" design with two pendant hearts suitable for engraving initials of loved ones. <br> \title{
TRUE-LOVE and FRIENDSHIP
} <br> \title{
TRUE-LOVE and FRIENDSHIP
}


## Send No Money $\Gamma$

Mall the coupon today. Your package sent immediately and you pay postman only $\$ 1.95$ each plus a few cents mailing cost and $20 \%$ Federal Tax, on arrival. SEND NO MONEY with order. Weap 10 days on money-back guarantee.

EMPIRE DIAMOND CO.
Dept. 40-EP
Jefferson, lowa

EMPIRE DIAMOND CO., Dept 40-EP Jefferson, lowa.
I want to take advantage of your special bargain offer. Please send me the following: $\square$ Extra wide band Ring. $\square$ Matching Earrings.
$\qquad$
$\qquad$ City ................. Stato . . . . . . . . . . . . . . . . . Ring size . .

## Hollyyuod Remembrance LOCKET

 today more than ever, not only because of their extraordinary beauty but also for the reason that so many ladies want to have pictures of their loved ones near to them at all times. This exquisite new and original locket is not only ornamental, but provides a place for two pictures on the inside. The 18 -inch chain has a special safety lock fastener. You will be delighted to own and wear this lovely locket.

## SEND NO MONEY

Empire Diamond Co., Dept. 101-HV, Jefferson, Iowa.
Send the New, 2-Tone Locket. I understand I can return my order within 10 days for any reason and you will refund promptly.
Name........................................................
$\qquad$
$\square$
City............................................................ . .
State.
Supply Limited Mail Coupon Today Just mail the coupon today. Your package will be sent immediately and you pay postman only $\$ 1.95$ plus a few cents for mailing cost and $20 \%$ Federal tax on arrival. Wear on 10 -day moneyback guarantee.
I EMPIRE DIAMOND CO. Dept. 101-HV

[^1]
## POSTAL RATES.-DOMESTIC

Flrst Class Matter may be forwarded from one Post Offce to another without additional postage, but other matter must. have new postage.

## LETTERS AND POSTAL CARDS.- FIRST CLASS.

Letters and Written and Sealed Matter, 3 cents for each ounce, local and nonlocal, except that drop letters are subject to 1 cent for each ounce when deposited for local delivery at offices not having letter-carrier service, provided they are not collected or dellvered by rurai or star-route carrlers.
Post Cards and Prlvate Malling Gards which comply with Denartmental requirements
Buslness Reply Cards or Letters, consult Post Offce.

## NEWSPAPERS AND PERIODICALS.- SECOND CLASS

Entlre Newspapers or Magazlnes when mailed by the public; for each two ounces or fraction, regardless of distance or welght
Fourth class rate applies when lt is lower than second class.

## MERCHANDISE AND MISCELLANEOUS. - THIRD CLASS. (Limit of welght 8 ounces.)

Speclal Rates for Books. - Books (containing no advertislng matter other than lncidental announcements of books) all zones: 3 cents a pound plus 1 cent up to and including 16 pounds: 17 to 27 pounds, 3 cents a pound plus 2 cents; 28 to 38 pounds, 3 cents a pound plus 3 cents: 39 to 49 pounds, 3 cents a pound plus 4 cents: 50 to 61 pounds, 3 cents a pound plus 5 cents; 62 to 70 pounds, 3 cents a pound plus 6 cents.
Merchandlse, incomplete coples of newspaners, printed and other mallable matter, each 2 ounces or fractlon
Books, catalogues mailed in packages not exceeding 8 oz in welght (must be of 24 or more pages and substantially bound. wlth at least 22 pages printed, seeds, cuttlings, bulbs, roots, sclons and plants, 2 ounces or fraction
Plaln Printed Cards contalning no writing other than the address, and not conforming with regulation slze of Post Card, shall be considered Thlrd Class and maled for
Permit Mal1. Envelopes. folders, etc., whlch are to be mailed under Thlrd Class permit privileges should indlcate the amount of postage pald.
Buik Mailings. Applications for bulk maillig privilege should be submitted to the Post Office.

## PARCEL POST. - FOURTH CLASS. <br> (For Zone consult Post Offce)

Everything over 8 ounces, including books and printed mattec except First Class and newspapers and other periodicals entered as Second Class matter mailed by the publishers:-

Table of fourth-class or parcel-post rates

| Weght | Local | $\begin{aligned} & 1-2 \\ & \text { UD to } \\ & \text { 150 } \\ & \text { mlles } \end{aligned}$ | $\begin{aligned} & 150 \\ & 150 \text { to } \\ & 300 \\ & \text { miles } \end{aligned}$ | $\begin{gathered} 4 \\ \begin{array}{c} 400 \text { to } \\ 600 \\ \text { miles } \end{array} \end{gathered}$ |  | $\underset{\substack{6 \\ 1.000 \\ 1,400 \\ \text { miles }}}{ }$ | $\underset{\substack{1,400 \\ 1,800 \\ \text { miles }}}{7}$ | $\begin{aligned} & 8 \\ & \text { Over } \\ & 1,800 \\ & \text { mlles } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 80.08 | 80.09 | 30.10 | \$0.15 | \$0.12 | 80.13 | \$0.15 | 80.16 |
|  | . 09 | . 11 | . 12 | . 15 | . 18 | . 20 | . 33 | . 38 |
| - | . 10 | . 13 | . 16 | 22 | .28 | . 34 | . 42 |  |
| 5 | . 10 | . 14 | 18 | 25 | . 34 | . 41 | . 52 |  |
| 6 | . 11 | . 15 | 20 | 29 | . 39 | . 58 | . 71 |  |
| 8 | . 11 | . 17 | $\stackrel{22}{24}$ | .32 <br> .36 | . 54 | . 63 | 78 | $\begin{array}{r}83 \\ \hline 95 \\ \hline\end{array}$ |
| 9 | . 12 | 18 | 26 | 39 | 56 | 70 | 89 | 1.06 |
| 10 | . 13 | . 19 | . 28 | . 43 | 61 | . 77 | . 98 | 1.17 |
| 11 | . 13 | 20 | . 30 | . 50 | 66 | ${ }^{84}$ | 1.07 | 1.29 |
| 13 | .14 | 23 | . 34 | . 54 | . 77 | .99 | 1.26 | 1.51 |
| 14 | . 15 | 24 | . 36 | . 58 | 82 | 1.06 | 1.35 | 1.64 |
| 15 | 15 | 25 | . 38 | $6{ }_{6} 61$ | . 94 | 1.121 | 1.53 | 1.64 |
| 17 | . 16 | 27 | . 42 | . 68 | . 99 | 1.28 | 1.63 | 1.97 |
| 18 | . 17 | 28 | 44 | . 72 | 1.05 | 1.35 | 1.72 | 2.08 |
| 19 | . 17 | . 29 | 46 | 75 | 1.15 | 1.42 | 1.81 | 2.19 |
| 20 |  | . 31 | . 50 | 82 | 1.21 | 1.57 | 2.00 | , |
| 22 | 18 | . 33 | 53 | . 87 | 1.27 | 1.64 | 2.09 | 2.53 |
| 23 | . 19 | . 34 | 55 | 90 | 1.32 | 1.71 | 2.18 | 2.65 |
| 24 | 20 | . 35 | . 57 | 94 | 1.37 | 1.78 | 2.28 | 2.76 |
| ${ }^{2.5}$ | 20 | ${ }_{37}$ | . 61 | 1.01 | 1.48 | 1.93 | 2.46 | 2.99 |
| ${ }_{27}^{26}$ | . 21 | . 38 | . 6.3 | 1.04 | 1.53 | 2.00 | 2.55 | 3.10 |
| 28 | 22 | . 39 | . 65 | 1.08 | 1.60 | 2.07 | 2.65 | 3.21 |
| 29 | 22 | 40 | 67 | 1.11 | ${ }_{1}^{1.65}$ | ${ }_{2}^{2} .21$ | ${ }_{2.83}^{2.74}$ | . 44 |
| 31 | ${ }_{23}$ | 42 | 71 | 1.18 | 1.75 | 2.29 | 2.93 | 3.55 |
| 3 | ${ }_{24}$ | 44 | 73 | 1.23 | 1.81 | 2.36 | 3.02 | 3.67 |
| 33 | 24 | 45 | 75 | 1.26 | 1.86 | 2.43 | 3.11 | 3.78 <br> 3.89 |
| 34 | 25 | 48 | 77 | 1.30 | 1.92 | 2 |  | 4.01 |
| 35 | 25 | . 47 | . 79 | 1.33 | 1.98 | . | 3.8 | .01 |


| Weight in Lbs. | Local |  | $\begin{aligned} & 3 \\ & 150 \text { to } \\ & 300 \\ & \text { milies } \end{aligned}$ | $\begin{aligned} & \frac{4}{300^{2}} \text { to } \\ & 600 \\ & \text { mlles } \end{aligned}$ | $\begin{aligned} & \text { ZONES } \\ & 5 \\ & 600 \text { to } \\ & 1,000 \\ & \text { mliles } \end{aligned}$ | $\begin{aligned} & 6 \\ & 1,000 \text { to } \\ & 1,400 \\ & \text { milles } \end{aligned}$ | $\begin{aligned} & 7 \\ & 1,400 \text { to } \\ & 1,800 \\ & \text { milies } \end{aligned}$ | $\begin{gathered} 8 \\ \text { Over } \\ 1,800 \\ \text { mafles } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36 | \$0.26 | \$0.48 | \$0.81 | \$1.37 | \$2.03 | \$2.65 | \$3.39 | \$4.12 |
| 37 | . 0.26 | + 49 | . 83 | 1.40 | 2.08 | 2.72 | 3.48 | 4.23 |
| 38 | . 27 | . 50 | . 85 | 1.44 | 2.14 | 2.79 | 3.57 | 4.35 |
| 39 | . 27 | . 52 | . 88 | 1.47 | 2.19 | 2.86 | 3.67 | 4.46 |
| 40 | . 28 | . 53 | . 90 | 1.51 | 2.25 | 2.94 | 3.76 | 4.57 |
| 41 | . 28 | . 54 | . 92 | 1.55 | 2.30 | 3.01 | 3.85 | 4.69 |
| 42 | . 29 | . 56 | . 94 | 1.59 | 2.36 | 3.08 | 3.94 | 4.80 |
| 43 | . 29 | . 57 | . 96 | 1.62 | 2.41 | 3.15 | 4.04 | 4.91 |
| 44 ; | . 30 | . 58 | . 98 | 1.66 | 2.46 | 3.22 | 4.13 | 5.03 |
| 45 | . 30 | . 59 | 1.00 | 1.69 | 2.52 | 3.30 | 4.22 | 5.14 |
| 46 | . 31 | . 60 | 1.02 | 1.73 | 2.58 | 3.37 | 4.32 | 5.25 |
| 47 | . 31 | . 61 | 1.04 | 1.76 | 2.63 | 3.44 | 4.41 | 5.37 |
| 48 | . 32 | . 62 | 1.06 | 1.80 | 2.69 | 3.51 | 4.50 | 5.48 |
| 49 | . 32 | . 63 | 1.08 | 1.83 | 2.74 | 3.58 | 4.59 | 5.59 |
| 50 | . 33 | . 64 | 1.10 | 1.87 | 2.79 | 3.66 | 4.69 | 5.71 |
| 55 | . 35 | . 70 | 1.21 | 2.05 | 3.07 | 4.02 | 5.15 | 6.27 |
| 60 | . 38 | . 75 | 1.31 | 2.24 | 3.34 | 4.38 | 5.61 | 6.84 |
| 65 | . 40 | . 81 | 1.41 | 2.41 | 3.62 | 4.74 | 6.08 | 7.41 |
| 70 | . 43 | . 87 | 1.51 | 2.60 | 3.88 | 5.10 | 6.54 | 7.97 |
| EXCEPTIONS |  |  |  |  |  |  |  |  |

(a) In the first or second zone, where the distance by the sbortest regular practicabie mail route is 300 miles or more, the rate is the same as for the third zone.
(b) On parcels collected on rural routes the postage is 2 cents less per parcel than shown in the foregoing table when for local dellvery and 3 cents less per parcel when $10 r$ other than iocal deilivery.
(c) Parcels weighing less than 10 pounds measuring over 84 inches, but not more than 100 inches in length and girth combined, are subject to a minimum cbarge equai to that for a 10 -pound parcel for the zone to which addressed.
(d) For speclal rates on catalogs and other similar printed advertising matter, consult postmaster.
Limit of slze for parcels is 100 inches in length and girth combined. Limit of weight is 70 pounds in all zones.
Library Books. - Books sent by authorized libraries to readers and when returned by such readers, for dellvery within the first three zones or the state in which mallert: 4 cents for the first pound and 1 cent for each additional pound up to and inciuding 47 pounds; 52 cents for 48 pounds and 1 cent for each additional pound up to and including 70 pounds.

## SPECIAL HANDLING. (Fourth Class Matter Only.)

Parceis of 4th Class Matter endorsed "Special Handilng" will be given the most expeditious treatment practicable (but not Special Dellvery) upon payment, in addition to reguiar postage: Up to 2 lbs .10 c ; Over 2 to 10 lbs .15 e ; Over 10 lbs .20 e .


The prepayment of the foregoing fee on second, third, or fourth class mall entities it to the most expeditious handifng and transportation practicable, and also entitles it to special delivery at the office of address,
To Canada: United States Special Delivery Fees are applicable on articles prepaid at the letter rate of postage. Newfoundiand and Labrador 20 c prepaid $\ln$ addition to regular postage on letters or articies oniy prepaid at the letter rate.


Registered mail is subject to surcharges under certain condltons.



## C. O. D. Mall - Unreglstered (third and fourth classes) Fees for collectlons and

 Indemnity limited to:

C. O.D. Mail - Registered (sealed matter of any class bearing first-class postage). Con suit postmaster for fees and limits of indemnity.

## POSTAL MONEY ORDER




For orders from -
$\$ 20.01$ to $\$ 40$
$25 c$
$\$ 40.01$ to $\$ 60$
50 0c
\$60.01 to $\$ 80$. . ........................ . . 34 .
$\$ 80.01$ to $\$ 100$............................ 37 c

## ARMED FORCES

Three cents an ounce, reguiar, or six cents, air, to U. S. Postmaster or Fleet Postmaster address. Use $V$ Mail ( 3 c per letter) for speedy transmission to most of the active war fronts.

## POSTAL RATES.-FOREIGN

Letters.-For the places in the following list the, postal rate is 9 cents each ounce or fraction. For all other foreign destinations, 5 cents first ounce and 3 cents each additional ounce or fraction: Argentlina, Bolivia, Brazll, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republio, Ecuador, Guatemala, Haiti, Honduras (Republic), Labrador, Mexico, Newfoundland, Nicaragua, Panama, Paraguay, Pera, Salvador, Ei; Spain and possesslons; Uruguay, Venezuela.
Letter Packages.-Articles liable to customs duty may be sent at the letter rate to certain foreign countries. (Inquire at main office or classified stations.) The paper form of customs declaration (Form 2976-A), or an invoice, must be enclosed in each such package and the green label, Form 2976, must be afflxed to the outsidc of the envelope or wrapper. The customs declaration and green label may be obtalned free at the post offlce.
Currency, Jewelry, and other precions articles.-Coins, bank notes, paper money, or any values payable to bearer; platinum, gold, or silver, manufactured or unmanufactured; prectous stones, jewelry, or other precious articles are prolibited in the unregistered mails. Money in cash, bank notes, or values payable to the bearer, whether sent in the registered or ordinary mails, are prohibited to certain countries, and in some cases may even be conflscated. Patrons should inquire at the main offce or classifled stations as to the admissibility of such articles in the letter malls to any particular forelgn country.
Post Cards.-Single post cards for places enumerated above 2 cents. Single post cards for all other foreign destinations 3 cents. Maximum size $6 \times 41 / 4$ inches, minlmum size $4 \times 2 \%$ inches.
Printed Matter.-1 $1 / 2$ cents for each two ounces or fraction. Limit of weight: Inquire at Post Office.
Reduced Postage Rate on Books.-For each pound or fraction-5 cents.
Weight limit: 22 pounds, except in case of single volumes addressed to Cuba, El Salvador, Mexico or Panama, where there is no limlt of weight. To Peru the weight limit for books is 11 pounds.
This reduced rate is applicable exclusively to books which do not contaln publicity or advertising other than that appearing on the covers or fly-leaves, when addressed to the following countries: Argentina, Bolivia, Brazil, Chlle. Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Rep. of Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.
Samples of merchandise.-For all foreign destinations, $11 / 2$ cents each 2 ounces or fraction, with a minimum charge of 3 cents. Limit of welght: 18 ouuces.
Commerclal papers.-For all forelgn destinations, $11 / 2$ cents each 2 ounces or fraction, with a minlmum charge of 5 cents. Limit of welght $4 \mathrm{lbs} ., 6 \mathrm{oz}$.
Eight-ounce Merchandise Packages.-Packages of merchandise weighing 8 ounces or less, for the countries specially named under "Letters" above, 2 cents for each 2 ounces, except that when the contents consist of seeds, scions, plants, cuttings, bulbs, or roots, the rate is $11 / 2$ cents for each 2 ounces. (This is not parcel post, must not have customs declarations attached, and must not be sealed cxcept when addressed for delivery in Canada, in which case such packages should be marked "This may be opened for postal inspection if necessary." There is also an exception with respect to sealing in the case of c. o. d. 8-ounce merchandise packages for Mexico, which may be sealed.)
Small Packets.-Three cents for each 2 ounces, with a minimum charge of 15 cents per packet. Limlt of weight: 2 pounds 3 ounces. (Inquire at main post office or classified stations for list of countries whicl accept small packets.) Small packets must bear the green label. Form 2976. They must also be accompanied by the paper form of customs declaration (Form 2976-A), properly completed by the sender and enclosed in the small packet. It is likewise permissible to enclose in small packets an open involce reduced to its essential terms. Every small packet must be clearly marked on the wrapper by the sender with the words "small packet."
None of the articles mentioned under the heading "Currency, Jewelry, and other precious articles" above, mas be forwarded in small packets, even though registered.

Mail service to many foreign countries has been suspended or greatly curtailed, due to war conditions. In view of frequent changes, inquire at post office before mailing articles addressed for delivery abroad.

Maximam dimensions.-For all foreign destinations on all classes of mall noted above (except Post Cards), 38 inches length, breadth and thickness comblned, the length being limited to 24 inches. When sent in the form of a roll the length (the maximum of which is 32 inches) plus twice the diameter is limited to 40 inches.

Registration fee.-For all forelgn destinations, 15 cents in addition to postage. When a return receipt is requested at the time of mailing there is an additional charge of 5 cents.

Special-delivery (exprès) service is now in force with the following foreign countries:

Argentina<br>Australia<br>Bahamas<br>Brazil<br>British Guiana<br>British Honduras<br>(Belize only)<br>Canada<br>Chile<br>China<br>Cuba<br>Cyprus<br>Dominican Republic<br>Ecuador<br>Egypt<br>Gibraltar<br>Gold Coast Colony<br>Great Britain and<br>Northern Ireland<br>Guatemala<br>Ireland<br>Kenya and Uganda<br>Mexico<br>Morocco (Spanish Zone)

Newfoundland (including Labrador)
Nyasaland Protectorate Palestine
Panama
Portugal
St. Pierre and Miquelon Sweden
Switzerland
Trans-Jordan
Union of South Africa

An article intended for special (exprès) delivery in any of the courtries mentioned above (except Canada, where the United States domestic fees apply) must be prepaid 20 cents, in addition to the regular postage. by United States special-delivery or other stamps, affled to the cover. There should also be affixed one of the "exprès" labels (Form 2977) or the cover must be marked boldly in red ink "Exprès," directly below but never on the stamps. In some countries the service is limited to certain cities, lists of which appear under the country items in Part II of the Official Postal Guide. In Canada and Newfoundland exprès special-delivery service applies only to letters (or articles prepaid at the letter rate). In the other countries of the above list, the "exprès" feature is applicable to ordinary and registered Postal Cnion articles (letters, post cards, commercial papers, printed matter, samples, and small packets), but not to parcel-post packages.

## INTERNATIONAL PARCEL POST.

Inquiry should be made of the Requirements and Supply Branch. Bureau of Supplies, Foreign Economic Administration, Washington, 25, D. C. or at the Branch at 61 Broadway, New York, N. Y. or of a Collector of Customs or the Field Offices of the Department of Commerce eoncerning the kind of license under which the particular article or articles to be sent may be exported.

Many foreign countries have special import license regulations about which information may be obtained at your local post office.

Because of the varying rates and enditions, as well as frequent changes. applicable to foreign countries. it is important that a qualified postal employce handle parcel post transactions. Therefore. parcel post parkages for foreign destinations must not be posted in a letter box: such packages should he taken to the main post office or to one of the larger classified stations and handed to a postal clerk.

## POSTAL MONEX ORDERS.-INTERNATIONAL.

```
Iimit of a Single Order, $100.
For Orders from-
    $0.01 to $10
```




Air Mail in the Continental Linited States is 8 cents for cacll ounce or fraction thereof. 'This rate is also applicable to Canada.

The rate to Bahamas, Cuba, Dominicau Republic, Haiti, Jamaica, British Virgin Islands, Mexico, Puerto Rico, and Virgin Islands of the United States, is 10 cents for each $1 / 2$ ounce or fraction thereof.

## FOREIGN AIR MAIL POSTAGE RATES

| Destination | Rate per <br> $1 / 2$ ounce |
| :---: | :---: |
| Aden | . 70 |
| Afghanistan | 70 |
| * Alaska | . 08 |
| Algeria | . 33 |
| Anglo-Egyptian Sudan | . 70 |
| Angola (I.W.A.) | . 60 |
| Argentina | . 40 |
| Azores | . 30 |
| Bahamas | 10 |
| Balırein Islands | . 70 |
| liarbados | . 25 |
| Belgian Congo | . 60 |
| Bermuda | . 10 |
| Bolivia | . 35 |
| Brazil | . 40 |
| British Guiana | . 30 |
| British Honduras | . 20 |
| British Virgin Islands | . 10 |
| Cameroons, Ĺr. \& Fr. | . 60 |
| * Canada | . 08 |
| Canal Zone | . 15 |
| Canary Islands | . 40 |
| Cape Verde Islands | . 55 |
| Ceylon | . 70 |
| Chile | . 40 |
| China (Unoccupied) | .70 |
| Colombia | . 35 |
| Corsica | . 33 |
| Costa Rica | . 15 |
| Cuba | . 1 |
| Curacao: |  |
| $\underset{\text { Bonaire }}{\text { Curacao }}$ Island, Aruba, - .25 |  |
| Saba, St. Eustatius, St. Martins | 10 |
| Cyprus | . 70 |
| Dahomey | 45 |
| Dominican Republic | . 10 |
| Gcuador | . 30 |
| ligypt | . 70 |
| lis Salvador | . 12 |
| Eritrea | . 70 |
| Ethiopia | . 70 |
| Falkland Islands | . 40 |
| l゙aroe Islands | . 30 |
| French Equatorial Africa | . 60 |
| French Guiana | . 30 |
| French Guinea | . 50 |
| French Sudan | . 50 |
| F'renell Togoland | . 45 |
| Gambia | . 01 |
| Gibraltar | . 30 |
| Great Britain | . 30 |
| Guadelonpe | . 15 |
| Guatemala | . 12 |
| Gold Coast Colony | . 50 |
| Haiti | . 10 |
| Hawaii | . 20 |
| IIonduras, Republic of | 12 |
| Iceland | . 30 |
| India, Br., Fr. \& Port. | . 70 |
| Iran | . 70 |


| Destination | Rate per 1/2 ounce |
| :---: | :---: |
| Iraq | . 70 |
| Ireland | . 30 |
| Ivory Coast | . 50 |
| Jamaica | . 10 |
| Kenya, Uganda | . $\mathrm{b}^{(1)}$ |
| Leeward Islands: |  |
| Anguilla, Antigua, Barbuda, |  |
| Nevis, Redonda, St. Kitts |  |
| Liberia | . 50 |
| Libya | . 33 |
| Madagascar | . 30 |
| Madeira | . 30 |
| Malta | . 70 |
| Martinique | . 15 |
| Mauritania | . 45 |
| Mauritius | . 60 |
| Mexico | . 10 |
| Morocco | . 33 |
| Mozambique (P.E.A.) | . 60 |
| Newfoundland | .15 |
| Nicaragua | .12 |
| Niger | . 40 |
| Nigeria | . 50 |
| Nyasaland | . 60 |
| I'alestine | . 50 |
| Panama | . 15 |
| I'araguay | . 40 |
| Peru | . 30 |
| Portugal | . 31 |
| lortuguese Guinea | . 50 |
| Portuguese East Africa (See Mozambique) |  |
| Puerto Rico | . 10 |
| Reunion | . 30 |
| Thodesia, No. \& So. | . 60 |
| Rio de Oro | . 40 |
| Saudi Arabia | . 719 |
| seneral | . 50 |
| Sierra Leone | . 50 |
| Somaliland, Er., Fr. \& It. | . 70 |
| Southwest Africa | . 60 |
| Spain (Spanisll Offices in |  |
| North Africa) | . 30 |
| Spanish Guinea | 5 |
| Surinam | . 30 |
| Sweden | . 30 |
| Stria \& Lebanon | . 70 |
| Tanganyika | . 60 |
| Trans-Jordan | . 70 |
| Trinidad | . 1.5 |
| Tunisia | . 3.3 |
| Turkey | . 70 |
| Union of South Africa | . 60 |
| Crusuay | . 40 |
| U. S. S. R. | . 70 |
| Venezuela | - |
| Virgin Islands, U. S. | . 10 |
| Windward Islands: |  |
| Grenada, Grenadines, St. Lucia, St. Vincent | .15 |
| Yemen | . 70 |
| Zanzibar | . 60 |

* 8 cents per ounce.


## BUY FROM THE OLDEST ESTABLISHE? FITM INTHEUNILED STATES SELLHC 22EGLASSUSEMMATL GLASSES as LOW as 31.95 PAIR

Choice of the LATEST STYLES-remarkably LOW PRICES. SATISFACTION GUARANTEED or your money back. If you are not satisfied-they will not cost you a cent.

## SERD MO MONEY Write for FREE catalog todav showing all of <br> our many styles and LOW PRICES $\sqrt{\text { BROKEN GLASSES }}$ <br> ADVANCZSPECTACLE CO. 537.5 . Dearborn St. Dept. ofs REPAIRED

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Thumbs to Nose . . and little fingers to ears . . . and you will have no more hiccoughs, Sounds like an old wives' tale? Just try it some time. Remember, how. ever, that you must block up both nose and ears tightly and swallow three times before you let go, They say the Lord looks after drunks and little children. Well, we learned this stunt from a retired barkeep over twentyfive years ago. Said be'd never met a case of hiccoughs this method wouldn't cure. Nor have we-in the twenty-five years since.


Birthplace of Robert B. Thomas, Grafton, Mass. Former residence of Joseph Goodale whose wife was Mr. Thomas' daughter. Now owned by Francis Prescott, classmate of Carroll Swan, the tenth anniversary of whose passing this 1945 OFA commemorates.

## THAT MILD WINTER OF 1943-44

In last year's OFA, Mr. Weatherwise committed himself to one of hls rare overall detinite predictions, saying: the coming winter will be milder than last-and probably milder than most. It seems worth recording here for future generations something of this mild winterso mild iñ most places as to reuain a counterpart iu years to come for the famous cold summer of 1816 .

Most likely snow was the begiuuiug indication of things to come for November 22, 23, and 24th. Southwestern New Hampshire and Southern Vermout got thirteen inches-the heaviest fall in the history of Rutlaud, Vermont. At which time, we are told the rheumatic donkey used by Lt. Col. F. A. Kleuver at a front line air force statiou just out of weather observing equipmeut, let out a particularly loud bray detected by some as professional jealousy. Others, sensing the OFA as off on the wrong foot-plenty wrong-gathered round to watch the kill.

By January 6, 1944, however, even the Navy had come aboard with Robert D. Edwards, aerology instructor at Colgate "seeing some unseasonably, mild weather betweeu the end of January and the middle of March," Only N. T. Case of Granby, Conn., refused to be railroaded, with the rest. He ou January sth saw a "wilder, not a milder winter" ahead.

Well, by January 28th, the returus started coming in. Chicago reported the "warmest January iu years." strawberry plants blossomed, orercoats became unnecessary. 62 in Chicago, 56 in Des Moines, 63 iu Minneapolis, 69 in Omaha. The Chicago weather bureau had to reassure folks that "winter would be back." The soothsayers began iusisting that all this had eome about purely and simply because the Office of Censorship and the Weather Bureau had lifted the weather restrictions somewhat at the beginuing of this season and this was just courteous on the weather's part-this mild winter. The yenerable New Yorlz Times of January 29 th , however, was pinching itself too and reassuring us we still couldn't be certain this was to be the wiuter our grandchildren would be asking us about-woolen underwearers being rushed to the hospital in January with heat strokes, robins in Central Park, canoeing down the Nose Dive at Mount Mans field. "The only certainty about the weather in this climate is its uncertainty."

January had averaged three degrees warmer per day.
And who knows . . perhaps Weatherwise won the war with his mild winter this year for certainly the Russian advances found it of iuestimable value. An AP Moscow dispatch of January 17th declared it to be the "mildest season, in the memory of many Moscovites who have lived here a long time". "the same conditions all the way to Vadivostok in the Far East." Why on the 17th it was ouly 5 above in Moscow-practically May conditions.

Then February . . and Marcli. On February 24, the famous News Front page in Iron Age magazine stated: "With the lower Great Lakes free of ice the 25 ships wintered at Mllwaukee are receiving feverish preparations. Navigation is expected to open much earlier than the traditional April 15th." The March issue of Yachting, boat-owners Bible, carried in its Niagara Frontier column: "Up to the time of this writing, the winter in this area has been unusually mild with a uoticeable absence of snow."

Even California couldn't make the headlines any more with such a winter and rushed its leading film comedians to the fore with copy about its "4 Day Storm" and "7 Inch Dew" on Washington's Birthday. When "intervierved", Groucho Marx said: "Call me later. I expect my dove back at 5 P. M." Bob Burns commented: "Tliere is no truth to the rumors I had trouble getting home last night. I found my house floating half way down the road to meet me." And continued the AP, cautious Eddie Cantor said: "I ow'n property here. I haven't noticed a thing."

The official Temperature Data on February 29th revealed "Departure from normal since Jan. $1,+148$ degrees" i.e. 148 degrees warmer than usual.

It was to be expected of course that eertain Yankee towns in Northern New Hampshire and Maine like Littleton, for example, and Brunswick. wouldn't experience the mildness the rest of us were enjoying. New England wouldn't be New England if they had. So, it is interesting to note W. I. Lincoln Adams of Littleton reeording for posterity in the letter columns of the New York Herald Tribune: "There are natives here past middle age who say they never saw so much snow nor experienced such cold weather as they have seen this winter."

## THE AGRICULTURAL EXPERIMENT STATIONS

These stations might be considered among the most valuable aids to the farmer Uncie Sam provides. Not ouly are the Directors available for your particular problen-their publications and advice will be foumd sound and extremely helpful. These stations are under the Office of Experiment Stations, Chief of which is James T. Jardinc, assistant chitet is R. W. 'I'rullinger, at Washington, D. C.
alabama-Auburn: M. J. Funchess.
Alaska-College: L. T. Oldroyd.
Abrona-Tueson: P. S. Burgess.
Arkansas-H'ayetteville: C.
Brannen.
Callfornia-Berkeley: C. B. Hutchison.
Colorado-Fort Collins: H. J. Henney.
Connecticut-
[New Haven] Station: New Haven; W. L. Slate. Storrs Station: Storrs; E. G. Woodward.
Delaware-Newark: G. L. Schuster.
Florida-Gainesville: Harold Mowry. Georgia -

Experiment: H. P. Stuckey.
Coastal Plain Station: Tifton; G. H. King.

Hawail-Honolulu: J. H. Beaumont.
Ivaho-Moscow: E. J. Iddings.
Illinois-Urbana: H. P. Rusk.
Indiana-La Fayette: H. J. Reed.
Iowa-Ames: R. E. Buchanan.
Kansas-Manhattan: L. E. Call.
Kentucky-Lexington: T. P. Cooper.
LoUisiana-University $S$ tation, Baton Rouge: W. G. Taggart.
Maine-Orono: F. Griffee.
Maryland-College Park: W. B. Kemp (acting).
Massachusettis-Amherst: F. J. Sievers.
Michigan-East Lansing: V. R. Gardner.
Minnesota-University Farm, St. Paul; C. H. Bailey.
M1ssissippi-Staṭe College: C. Dorman.
M!ssouri-
College Station: Columbia; M. F. Miller.
Fruit Station: Mountain Grove: P. H. Shepard.

Poultry Station: Mountain Grove: T. W. Noland.

Montana-Bozeman: C. McKee.
Nerraska-Lincoln: W. W. Burr.
Nevada-Reno: S. B. Doten.

New Hampshire-Durham: M. G. Eastman.
New Jersiy - New Brunswiet: W. H. Martin.

New Mexico-State College: Fabian Garcia.
New York-
State Station: Geneva; A. J. Heinicke.
Cornell Station: Ithaea; C. E. F. Guterman.
North Carolina-State College Station, Raleigh: L. D. Baver.
Nortif Dakota-State College Station, Fargo: H. L. Walster.
Ohio-Wooster: Edmund Secrest.
Oklahoma-Stillvater: W. L. Blizzard.
OREGON-Corvallis: W. A. Schoenfeld.
Pennsylvania-State College: $F$. F. Lininger.

Puerto Rico-
Federal Station: Mayaguez; K. A. Bartlett.
Insular Station: Rio Piedras; Arturo Roque.
Rhode Island-Kingston: M. H. Campbell.
South Carolina-Clemson: H. P. Cooper.
SOUTH Dakota-Brookings: I. B. Johnson.
TenNessee-Knoxville: C. A. Mooers.
Texas-College Station: A. B. Conner.
Utah-Logan: R. H. Walker.
Vermont-Burtington: J. E. Carrigan.
Virfinia-
Blaclisburg: A. W. Drinkard, Jr. Truck Station: Norfolk; H. H, Zimmerley.
Washington-
College Station: Pullman; E. C. Johnson.
Western Station: Puyallup; J. W. Kalkus (Supt.)

West Virginia-Morgantown: C. R. Orton.
Wisconsin-Madison: E. B. Fred.
Wyoming-Laramie: J. A. Hill.

## DOOR STOPS

Doors in modern linuses often have antomatic gadgets on them to holl them open but old houses lonk better to use door stops. A lot of old honses are so ont of plumb doors won't stay open at all without dour stops and in the summer they hell, to let the breezes sweep clean throngh and get at that musty, shut-up smell old huildings usually have. Once $I$ fomul something iu a deserted lobsterman's shanty on the Harpswell shore. I hought it home, cleaned and varnished it. It's a hollow half-hall of cast iron with three holes spaced around the edge and a loose ring set in the top. I guess a handred people tried to think what it might be, after I set it against the front hall door to hold it. Noboly has ever gruessed it is the top of an old wooden hitching post, it looks so well.

John Decoven Berry


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## DEGREE DAYS

Apparently there have been such things as Degree Days for ycars and years if we are to believe a source as reliable as the Heating and Ventilating Magazine of 148 Lafayette . Street, New York City. . . which has been publishing data with regard to same sinee 1930 and betore.
A Degree Day is a mighty useful gadget. It will help you determine the relative strength of each winter as it plods aloug as well as give you a good measure of how your fuel supply is going to hold out against this doleful September to May period of hibernation. By definition, a Degree Day is the number of degrees that the mean temperature falls below the average of $6 \sqrt{5}$. For example, if the mean temperature of yesterday (sce your loeal paper) was 15 degrees Fahr., it was a 50 degree day. We don't know who said it, but somebody did, that the average number of Degree Days in an average winter total of 5934 . More on this follows.

In the meanwhile, it is well to remember that your oll consumption (or coal or wood) is not the same in each of the months from sel, tember to May. It proceeds rather along the percentages outlined in the following table:

| Milwaukee, Wisc. | Davenport, La. | Cairo, Ill. |
| :---: | :---: | :---: |
| or | or |  |
| Portland, Me. | New York City | Richmond, Va. |



Thus, if you reside in Portland, Maine-or Milwaukee, Wisconsinby consulting the foregoing table you will diseover that by November 30th you will have-in an average winter-have consumed 1.7 plus 6.3 plus 11.1 or 19.1 per cent of your total fuel consumption for the year. And will need to provide $80.9 \%$ for the months to follow.

But how, you may ask, do I know whether or not it is an average winter. Then it is your turn to consult the next table which follows giving you the degree days for Portland, Maine ( 7218 ) and Milwaukëe, Wisconsin (7245) as well as nost other cities in a normal year. If by November 30th, your record of the mean temperatures in your locality reveals you have had more than $19.1 \%$ of the year's degree days, then you will know the winter is more severe than usual . . and you will need an extra supply of fuel. If you have had fewer degree daysyou will not need as mueh fuel as usual, etc.

| Place - $\quad$ N | Degree Days Normal Year | Place | Degree Day: <br> Normal Year |
| :---: | :---: | :---: | :---: |
| Abilene, Texa | 2061 | Los Angeles, Cal. | 1504 |
| Albuquerque, N. Mex. | 4298 | Louisville. Ky. | 4180 |
| Asheville, N. Car. | 4232 | Menphis, Tenn. | 2950 |
| Atlanta, Ga. | 2890 | Milwaukee, Wis. | 7245 |
| Bismarck, N. Dak. | 9192 | Minneapolis, Minn. | 7850 |
| Boston, Mass. | 6045 | Nantueket, Mass. | 5957 |
| Burlington, Vt. | 7514 | New Orleans, La. | 1024 |
| Chattanooga, Te | 3118 | New York, N. | 5347 |
| Cleveland, O . | 6155 | Omaha, Neb. | 8131 |
| Concord, N. H. | 7353 | Parkersburg, W. Va | 6109 |
| Dayton, ${ }^{\text {Chieago }}$ (in | 5264 | Pittshurg, lab | 5235 |
| Chieago, th. | 5957 2258 | Portland, Me. | 7218 |
| Denver, Col. | 5874 | Providenee, R. I. | 6015 |
| Dubuque, Ia. | 6790 | Richmond. Va. | 3695 |
| Greenville, S. Car. | 3380 | St. Lonis, Mo. | 4585 |
| Harrisburg. Pa. | 5375 | San Franeisco | 3264 |
| Hartford, Ct. | 6036 | Topeka, Kan. | 4969 |
| Indianapolis, Ind. | 5298 | Trenton, N. J. | 4933 |
| Kansas City, Kan. | 4956 | Washington, D. C. | 4626 |

To judge the Degree Days for your own town, interpolate between the two nearest eities listed above.


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## THE WORLD AT WAR - 1944 <br> Compiled by KATHARINE ELIZABETH CRANE, U. S. Dept. of State

America United

| States of . . . . |
| :---: |
| Argentina. |
| Australia. |
| Belgium: |
| Bolivia. |
| Brzzil. |
| Canada. |
| Chile . |
| China |
| Colombia |
| Costa Rica |
| Cuba |
| Czechoslovakia |
| Dominican Republic. |
| Ecuador . . . . . |
| Egynt |
| Fl Salvador |
| Ethiopia |
| France. |
| French Committee of |

National Liberation .A
Grecece....
Guatemala
Haiti
Honduras............ A
Iceland............

India. . ................
Iran...............
Iraa...............
Italy

| Iiberia <br> Luxembourg <br> Mexioo |
| :---: |
|  |  |
|  |  |

Mexioo..............
Netherlands. .......
Now Zealand...
Nicaragua. .........

Nicaragua............. H L
Norway............
Panama............
H
L
Paraguay...........
Peru...............
H
Philippines, Com-
monwealth of the .
Poland



Saudi Arabia.
Turkey
Union of So. Africa.
Union of Sovict Sooialist Republics
United Kingdom
Urugu2y ........... A A H L
Venczuela $\qquad$ A H
Yugoslavia
L U (W)

A - Governments or authorltles assoclated with the United Nations in the war.
a - In a state of armistlce relations.
B - In a "state of belligerency".
H-Amerlean republics, slgnatories of pledges of hemisphere solidarity, mutual ald agalnst aygression, etc.
L - Declared ellyile for lend-lease aid; i.e., declared to be a country or entity the defense of whic! is vital to the defense of the-United States.
s - In a state of severed diplomatic relations or a state which has some of the claracteristics of severed diplomatic relations.
If - Signatory of or adherent to the Declaration by United Natlons.
W- At war, either by formal declaration or de facto.
Letters enclosed in parentheses indicate that the situation ls open to different interpretations. Bold face indicates developments since this chart was made.


## HUDSON'S BAY

## Point

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## ARCTIC RESCUE

## Nov. 9, 1942 - Apr. 6, 1943

[Briefed from a War Department-A. P. release $5 / 3 / 43$ ]
Captain Monteverde was pilot and Lieutenant Spencer co-pilot of a Flying Fortress which was being ferried to Great Britain. It was diverted Nov. 9, 1942, to search for another plane that was reported overdue.
The other plane never was found and while Monteverde's was engaged in the unsuccessful scarch, it crashed near the West Coast of Greenland.
The plane broke in two, and the radio was wrecked. Sergcant Paul J. Suina was the only one seriously injured.

The crew rigged quarters in the tail of the broken fuselage, lut there were only limited rations aboard. High winds and driving snow kept the men inside the crumpled Fortress for ten days. Their situation was made more perilous when a fissure opened in the ice beneath the tail scetion.

Despite the intense cold, Corporal Loren H. Howarth got the radio repaired, and the stranded men established communication with would-be rescuers, who now included the Army, the Navy and the Coast Guard.

On the fifteenth day Colonel Bernt Balchen, noted flier and Arctic explorer, flew over and dropped supplies. At about the same time Sergeant Tetley and Lieutenant Max H. Demorest, set out with two motor sleds from a small weather station not many miles from the crash. They finally reached the scene on foot, went back for their sleds. Then Lieutenant Demorest disappeared with his sled into a crevasse less than 100 yards from the planc. All rescue attempts failed.

Meanwhile Lieutenant John A. Pritchard, Jr., a Coast Guard flier, landed a Grumman plane near the wreck and succeeded in flying back to the cutter Northland, taking with him Sergeant Alcxander F. Tucciarone and Staff Sergeant Lloyd Puryear. He returned to the wreck during the attempt to rescue Lieutenant Demorest, but was ordered to take off immediately because fog was closing in. His planc crashed in the take-off, killing all aboard-Pritchard, Howarth and Radioman Benjamin A. Bottoms of the Coast Guard.

The feet of Lieutenant William F. OHara in the meanwhile had frozen and were gangrenous, so Captain Monteverde put hiin on a sled and sent him off-Sergeant Tetley driving the sled and accompanied by Lieutenant Spencer and Private Clarence Wcdel.

A milc and a half from the wreck, Privatc Wedel dropped into a bottomless crevasse and was lost. Four miles farther on, the sled broke down, and the survivors were stranded in two camps. Foul weather and the all but impassable terrain frustrated all attempts to reach them. They were kept alive only by supplies flown in and dropped by the Air Transport Command when the weather permitted.

It was not until February, 1943, Colonel Balchen succecded in landing a Nary flying boat beside the sled camp and rescuing all the men there, including O'Hara, who lost both feet. Bad weather prevented a return trip by Colonel Balchen until carly in April, when he madē a second trip, carrying a dog team and several men cxpericnced in Arctic work. These succecded in bringing Captain Montevcrde and the others from the plane to the sled camp and on April 6 Baichen landed his PBY in the snow a third time and flew out with all survivors, including Technical Sergeant Alfred C. Best.


This famous White House line offers you a New England family of quality foods-rich, flavory, fresh coffee-choice orange pekoe and pckoe tea-crispy, golden-brown salted peanuts. There are none better at any price.

## WHITE HOUSE COFFEE

Box 1871 BOSTON, (5) MASS.

## ACCORDING TO THE ANCIENTS

(Hesiod - sth Century, B. C.)
Eaeh day in the montl was to be regarded not only for its weather but for its favor in the eyes of the gods. Here is how these days of any month were regarded.
1 Holy.
$: \quad$ Luekless.
; Luckless.
4 Holy--Build ships-Bring home bride.-Avoid heartfelt troubles. Fate day.
$\bar{J}$ Aroid. Unkindly and terrible.
6 Cliangeable.
7 Holy.
8 (Geld the boar and the bull. Beget or bear. Both these days good
9 for the works of man.
$10\}$ Favorable day for a man to be born. Shear Sheep and reap fruits.
12 Better still. Geld mules.
13 O. K. to set plants but do not sow.
14 Holy above all. Favorable for girl to be born. Tame sheep, mules, and horned oxen-and dogs.
15 Brings nothing.
16 Fence the sheepeote. Geld kids or sheep-favorable for male to be born but unfarorable for girl to be born or married. Unfavorable day for plants.
17 Cut your timbers.
18 Luckless.
19 Improves towards evening.
20 A wise man is born on this day.
21 Luekless.
22 Luekless.
23 Luekless.
24 Best in morning-less good towards evening. Avoid heartfelt troubles. Fate day.
こ Changeable.
26 Changeable.
27 Launeh ships-Open brine jars-and yoke oxen.
2 S Luckless.
29 Luekless.
30 Look over work-Deal out supplies.
31 Luckless.
Hesiod also did some dire prophesying on his aeeount-but don't let it get you down.
"For now truly is a race of iron and men never rest from labor and sorrow by day, and from perishing by night . . . and Zeus will destroy this race of mortal men when they eome to have gray hair on the temples at their birth. The father will not agree with his children nor guest with host nor comrade with eomrade, nor brother be dear to brother as aforetime. Men will dishonour their parents as they grow quickly old . . . and one man will saek another's eity. There will be no favour for the man who keeps his oath or for the just or for the good; but rather men will praise the evildoer and his violent dealing. Strength will be right and reverenee will cease to be; and the wicked will hurt the worthy man, speaking false words against him, and will swear an oath upon them . . . and bitter sorrows will be left for mortal mell and there will be no help against evil."

## Tables of Measures

## (English Units)

## Lincar Measure

1 foot=12 inches
1 yard=3 feet
1 rod $=51 / 2$ yards $=161 / 2$ feet
1 mile $=320$ rods $=1760$ yards $=$
5280 feet
1 nautical mile $=6080$ feet
1 knot=1 nautical mile per hour
1 furlong $=1 / 8$ mile $=600$ feet $=$ 220 yards
1 league $=3$ miles $=24$ furlongs
1 fathom $=2$ yards $=6$ feet
1 chain $=100$ links $=22$ yards
1 link $=7.92$ inches
1 hand=4 inches
1 врад=9 inches

## Square Measure

1 square foot=144 square inches
1 sq. yard= 8 sq. feet
1 sq. rod $=301 / 4$ \&q. yards $=$
$2721 / 4 \mathrm{sq}$. ins.
1 acre $=160 \mathrm{sq}$. rods $=43560 \mathrm{sq}$. ft.
1 sq. mile $=640$ acres=
102400 sq . rods
1 sq. rod $=025$ square inks
1 sq. chain $=16$ square rods
1 acre $=10$ square chains

## Cubic Measure

1 cubic foot $=1728$ cubic inches 1 cubic yard $=27$ cu. feet
1 register ton (shipping measure) $=100$ cublc feet
1 U. S. shipping ton $=40$ cu. ft.
1 cord=128 cubic feet
1 U. S. liquid gallon $=4$ quarts = 231 cubic inches 1 imperial gai. $=1.20 \mathrm{UJ}$. S. gais.
$=0.16$ cubic feet
1 board footal44 cubic inches

## (Metric Units)

Linear Measure
1 centimeter $=10$ millimeters
1 decimeter $=10$ centimeters
1 meter $=10$ decimeters
1 dekameter $=10$ meters
1 hektometer $=10$ dekameters
1 kilometer $=10$ hektometers
1 inch $=2.54$ centimeters
1 meter $=39.37$ inches
1 yard $=0.914$ meters
1 mlle $=1809$ meters=

1.61 kilometers

## Square Measure

1 square centimeter=
100 square milifmeters
1 sq. declmeter=
100 sq . centimeters
1 sq. meter $=100 \mathrm{sq}$. decimeters $=$
1 centar
1 ar $=100$ centars
1 hektar $=100$ ars
1 sq . kilometer $=100$ hektars
18 q . centimeter $=0.15$ sq. Lnches
1 8q. meter $=1.20$ sq. Fards
1 sq. kilometer $=0.39 \mathrm{sq}$. miles
1 hektar $=2.47$ acres
1 sq . inch=6.45 sq. cm .
1 sq. yard=0.84 sq. m.
$18 q . \mathrm{mlie}=2.59 \mathrm{sq} . \mathrm{km}$.
1 scre $=0.40$ hektars

## Cable Measure

1 cublc centimeter $=$
1000 cublc millimeters
1 cu. decimeter $=$
1000 cu . centimeters
1 cu. meter $=1000 \mathrm{cu}$. decimeters
1 cu. yard $=0.76$ cubic meters
1 cu. meter $=1.31$ cubic yards
1 ilter $=1.08$ U. S. liquid quarts
1 hektoilter $=100$ liters=
26.42 U. S. liquid gallons

1 O. S. liquid quart $=0.94$ ilters
1 U. S. Lqquid gallon=3.76 Lters

## Weights

## Avolrdupols

1 pound $=16$ ounces
1 hundredweight $=100$ pounds
1 ton $=20$ hundredweight $=$
2000 pounds
1 long ton-2240 pounds

Troy
(Used in weighing gold, sllver, jeweis)
1 peanyweight $=24$ grains
1 ounce $=20$ pennyweight
1 pound=12 ounces

## Apothecarles

1 scruple $=20$ grains
1 dram=3 seruples
1 ounce $=8$ drams
1 pound=12 ounces

## Metric

1 centigram=10 miligrams
1 decigram=10 centigrams
1 gram=10 decigrams
1 dekagram=10 grams
1 hektogram=10 dekagrams
1 kilogram=10 hektograms
1 metric ton $=1000$ kilograms
1 kllogram=2.20 pounds
1 pound avolrdupols=
0.45 kliograms

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## INDEX

| Age, old. . . . . . . . . . . . . . . . . . . . . . . 48 | Holdays, Church, State-alt. pages $13,15-37$ |
| :---: | :---: |
| A ir Mail. . . . . . . . . . . . . . . . . . . . . . . 61 | y Days-ait pares . . . . . . . . . . 15-37 |
| Air Mail, forclgn . . . . . . . . . . . . . . . . 61 | Holy Days-ait. pages. . . . . . . . . . . . . . . . 76 |
| Aldcbaran. . . . . . . . ${ }^{\text {a }}$ | Migratory Game Birds.... . . . . . . . . 43 |
| Agricultural Experiment stations. . . . 44.45 | Moon, Age of -alt. pages . . . . . . . 14 -36 ${ }^{14}$ |
| Aphelion, Earth in. . . . . . . . . . . . . . . ${ }^{4}$ | Moon, Place-alt. pages. . . . . . . . ${ }^{\text {a }}$ - $4-35$ |
| Arctlc Rescue. . . . . . . . . . . . . . 73 | Moon, Slze of. . . . . . . . . . . . . . . . . .14-30 |
| Aspects, Names and Characters, <br> Occurrence. . . . . . . . . . . . . . . . .4, 15-37 | Outside New England Corrections ...4-12 |
| Calculations and Corrections (Outsıde New England) …................... 12 (In New England) | Perihelion, Earth in <br> Planets, Names and Characters, Rise and Set <br> Planting Table |
|  | Planting Tabie. . . . . . . . . . . . . . 15 - $37.44,44,45$ |
| Censor's Note. . . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{\text {Cor }}$ | Poetry................... . . 15 37, 44 |
| Charades . . . . . . . . . . . . . . . . . . . . 47 | Postal Rates, Domestic . . . . . . . . . . . . . 59 , 10 |
| Chronological Cycles. . . . . . . . . . . . is ${ }_{3}^{4}$ | Postal Rates, Horelgn . . . . . . . . . . . . . . . . . . 46 |
| Dates Historic-ait. pages. . . . . . . 15-37 | Puzzles. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 54 |
| Day of Year, Month, Week . . . . . . . . 14 14-36 | Seasons. . . . . . . . . . . . . . . . . . . . . . 4, 5, 6 |
| Days, Length of -ait. pages . . . . . . . . . . . ${ }^{\text {d- }} 66$ | Stars, Morning and Evening . . . . . . . ${ }_{5}^{5}$ |
| Degree Days. © U | Suns Declination-alt. pages. . . . . . 14-36 |
| Door Stops. . . . . . . . . . . . . . . . . . . . . 64 | Sun, Rise and Set-alt. pages....... $144-36$ |
| Eclipses. . . . . . . . . . . . . . . . . . . . . . . . 8 | Sun, Slow-alt. pages. . . . . . . . . . . . . . . . . ${ }^{\text {d }}$ |
| Editor's Note. . . . . . . . . . . . . . . . $14-36$ | Thomas, Robt. (home)... . . . . . . . 62 |
| Election Days - ait. pages. . . . . . . . . 14 4-12 | Tides, F'ull Sea, Height of, Corrections |
| Explanations . .iars-ait. pages. . . . . . $15-37$ | 7, 14-37 |
| Feasts and Fasts, Movable. ... . . . ${ }^{4}$ | Time used........................... ${ }^{\text {a }}$. ${ }^{\text {a }}$ |
| Food, Preservation of . . . . . . . . . . . $51-53$ |  |
| Frosts Garne $^{\text {Laws . . . . . . . . . . . . . . . . . . . . . . . . . . } 40-43}$ | Weather Indications-alt. pages, in ital. |
| Game Laws Periods of . . . . . . . . . . . . . . . . . 48 | (15-37, 2 |
| Glossary . . . . . . . . . . . . . . . . . . . . . $5.48{ }_{4}^{6}$ |  |
| Heat, Animals in . . . . . . . . . . . . . . . . . . . . . 75 | Zodiac, Slgns of-Moon's Place in 4 , 14-36 |

## FULL PAGE ADVERTISERS



## ANSWERS TO CHARADES ON PAGE 47

1. Manhattan. 2. Mushroom. 3. Image. 4. Brimstone. 5. Morning Glory. 6. Obey. 7. Humorlst (Hume O Wrist). 8. Skylark.

## ANSWERS TO PUZZLES ON PAGE 46

1. (1) The training days of Colonial times. (2) Approximately 1805-1850 Negroes, Indians, Congressinen, college and acaderny students, elders, deacons, Quakers, selectmen, miliers, physiclans. (6) Usuaily ,. ${ }^{\text {. September. .. (7) Not less than twenty, }}$ acres. (8) Ballads such as "Tom Bowling." "Betsy Baker," "On the Road to Boston. (9) The town (which let out the contract to the iowest bidder). (10) Roast, baked, and boiled beef; oysters, wheat and rye bread, cheese: mince and apple pies: sometimes plum, puddings. (11) Blackstrap, fip, toddy, whiskey, clder, West Indla Rum. (12) By heing carernly wrapped around with new-mown hay. (13) Drunkenness, gambling, fighting, profanity, and rowdylsm. (14) Probably for the one as much as for the other.
2. "Be just, and fear not.
3. 4. Parody, rod, pay.
1. Trident, rid, tent.
2. Patient, tie, pant.
3. Frigate, rlg, fate.
4. Yorktown.
5. Sparablc.
6. The letter E.
7. Codicil.

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